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OF THE

STATE OF CONNECTICUT,

JANUARY SESSION, 1887.


Vol. I.

Printed by order of the General Assembly.

HARTFORD:

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REPORT
OF THE
TREASURER
OF THE
STATE OF CONNECTICUT,
TO
HIS EXCELLENCY THE GOVERNOR,

November 1, 1887,

FOR THE
FISCAL YEAR ENDING JUNE 30 1887.

—*—

HARTFORD, CONN.:
PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.
1887.

State of Connecticut.

REPORT.

STATE OF CONNECTICUT,
TREASURER'S OFFICE, HARTFORD, November 1, A.D. 1887.

To His Excellency,

PHINEAS C. LOUNSBURY,

Governor :

Sir, —

In compliance with the law I have the honor to present my report of the business of this office for the fiscal year ending June 30, 1887.

CIVIL LIST ACCOUNT.

Balance of cash on hand July 1, 1886,	-	-	\$230,442.48
Receipts of revenue during the year,	-	-	2,021,899.26
			<hr/> \$2,252,341.74

Deduct payments, as follows:

Civil List Orders,	-	-	-	\$1,205,479.49
Registered Orders,	-	-	-	355,453.45
Interest on Agricultural College Fund in the Treasury,	-	-	-	111.92
Interest on Town Deposit Fund in the Treasury,	-	-	-	544.66
Interest on principal of School Fund in the Treasury,	-	-	-	542.39
Interest on Revenue of School Fund in the Treasury,	-	-	-	2,218.23
Interest on State Bonds,	-	-	-	156,821.00
State Bonds,	-	-	-	40,600.00
Balance to the credit of the Civil List July 1, 1887,	-	-	-	<hr/> \$490,570.60 <hr/>

TREASURER'S REPORT.

GENERAL AND SPECIAL ACCOUNTS.

Balance to the credit of all accounts July 1, 1886,	-	\$325,789.23
Receipts from all sources during the year,	-	2,336,987.96
		<hr/> \$2,662,777.19
Deduct payments for all purposes,	-	-
	-	2,043,783.02
Showing a balance to credit of all accounts July 1,		
1887, of	-	<hr/> \$618,994.17

STATE DEBT.

The Funded Debt, less the Civil List Funds, July 1,		
1886, was	-	\$4,040,757.52
The Funded Debt, less the Civil List Funds, July 1,		
1887, was	-	3,740,029.40
Showing a reduction of the public debt during the		
fiscal year of	-	<hr/> \$300,728.12
The Funded Debt July 1, 1887, was		<hr/> \$4,230,600.00

STATE BONDS.

The \$2,200 of State Bonds, belonging to the account of bonds purchased July 1, 1886, together with \$600 of Bonds purchased during the year, were burned by the Finance Committee of the General Assembly of 1887. The amount of bonds on hand canceled June 30, 1886, belonging to the account of bonds purchased, is \$40,000.

The amount of Registered Bonds issued during the year in exchange for Registered Bonds transferred and surrendered, is \$45,000.

RECEIPTS FOR THE YEAR.

From the Insurance Commissioner,	-	\$19,182.63
Avails of Courts and Forfeited Bonds,	-	22,544.19
Tax on Railroads, due Oct. 20, 1886,	-	567,571.99
Tax on Mutual Insurance Companies,	-	230,074.87
Tax on Agents of Insurance Co.'s of other States,	-	23,929.32
Tax on Savings Banks,	-	211,393.72
Tax on Non-Resident Stock,	-	74,672.02
State Tax from Towns,	-	698,355.22

Military Commutation Tax,	-	-	-	-	\$103,045.00
Interest on deposits,	-	-	-	-	21,388.11
All other sources,	-	-	-	-	49,742.19
					<hr/>
					\$2,021,899.26
					<hr/>

TOWN DEPOSIT FUND.

The Town of Newington has drawn its proportion of the Town Deposit Fund, \$1,496.24. The balance of the Fund in the hands of the Treasurer is \$17,328.48.

By virtue of an Act of the General Assembly, entitled "An Act authorizing the Redemption of State Bonds," approved May 18, 1887, I published the following :

PROPOSALS FOR CONNECTICUT STATE BONDS.

STATE OF CONNECTICUT,

TREASURER'S OFFICE,

HARTFORD, June 2, 1887.

Sealed proposals will be received by the undersigned until twelve o'clock, noon, on Monday the 20th day of June, 1887, for the purchase of the whole or any part of a proposed issue of Bonds of the State of Connecticut, to the amount of one million dollars.

The bonds to be issued will be Registered Bonds, and will be due and payable on the first day of May, A.D. 1897, *but the whole or any portion thereof may be called in and paid at the option of the State Treasurer at any time after they shall have been issued.* They will bear interest at the rate of three and one-half per centum per annum, payable in semi-annual payments on the second days of May and November in each year at the office of the Treasurer in the city of Hartford.

These bonds are to be issued under authority of an Act of the General Assembly of Connecticut, approved May 18, 1887, and are expressly exempted from taxation in this State, by or under State or municipal authority.

The bonds will be issued in sums of one thousand dollars each, and the lowest numbers issued under the award will be to the highest bidder; and whenever the Treasurer shall call in any bonds for payment, the bonds outstanding bearing the highest numbers will be the first called and redeemed.

It is expected that the bonds will be engraved, printed, and made

ready for delivery on or before the first day of July, 1887, in which case they will be delivered, and must be paid for at the office of the Treasurer in the city of Hartford, on said first day of July; or, if not completed, as soon thereafter as they are ready for delivery, due notice of which will be given.

A cash deposit of five per cent. will be required, as a guaranty of good faith, from each purchaser, immediately after due notice to him that bonds have been awarded to him under his bid.

No bid will be received at less than par. All bids must be upon the face of the bonds.

Accrued interest will be charged on the bonds from the second day of May until they are delivered.

The right is reserved to reject any or all bids.

Bidders should mark the outsides of their envelopes "Proposal for purchase of Bonds."

In accordance with the above advertisement, and in the presence of His Excellency, Phineas C. Lounsbury, and of others who desired to be present, I opened, on the 20th day of June, 1887, at 12 o'clock noon, all proposals received, and the following award of bonds was made, viz.:

\$500,000 to the Etna Life Insurance Company of Hartford, at a premium of \$16,350.00, and \$500,000 to the Williamsburgh Savings Bank, Brooklyn, N. Y., at a premium of \$12,750.00.

The price obtained for the above issue of bonds is very satisfactory, and a gratifying evidence of the high financial standing of the State.

On the 20th day of June I published the following:

NOTICE OF REDEMPTION OF CONNECTICUT STATE BONDS.

STATE OF CONNECTICUT,

TREASURER'S OFFICE,

HARTFORD, June 20, 1887.

By authority of an Act of the General Assembly, approved May 18, A.D. 1887, notice is hereby given that all five per cent. bonds of the State of Connecticut issued under authority of Acts of the General Assembly, approved March 15th and 21st, A.D. 1877, and payable May 1st, A.D. 1897, and redeemable at the pleasure of the General Assembly after the 1st day of May, 1887, and all bonds issued in

exchange for or on account of the same, will be redeemed and paid on presentation at the Treasurer's office in the city of Hartford, on or after the 1st day of July, 1887, and interest on said bonds will cease on said first day of July, 1887.

The receipts for the bonds issued, and the payments for the bonds called being after June 30, will appear in the Treasurer's next annual report.

Annexed are the tables and statements of accounts for the fiscal year ending June 30, 1887.

Respectfully submitted,

ALEXANDER WARNER,

Treasurer.

TREASURER'S REPORT.

STATEMENT OF THE FUNDED DEBT OF THE STATE OF CONNECTICUT, JUNE 30, 1887.

Authorizing Acts.	Principal Payable in Hartford.	Interest Payable Semi-Annually.	Amount Issued.	Amount Outstanding.
July 14 and 21, 1865.	October 1, 1885. ^a	Formerly,	\$2,000,000	<i>a</i> \$600
March 15, 1877.	May 1, 1887-1897. ^b	Formerly,	1,031,000	990,000
March 19, 1882.	January 1, 1903.*	January and July,	500,000	500,000
April 4, 1883.	January 1, 1903.*	January and July,	1,000,000	1,000,000
March 10, April 22, and April 23, 1885.	October 1, 1910.*	April and October,	1,740,000	1,740,000
			\$6,271,000	\$4,230,600

^a These bonds ceased bearing interest Oct. 1, 1885.^b Called July 1, 1897.

* Not taxable.

GENERAL REVENUE.

TAXES FROM TOWNS PAYABLE NOVEMBER 10, 1886.

HARTFORD COUNTY.

TOWNS.	Grand List of October, 1885.	Tax of 2 mills on the dollar.	MILITARY COMMUTATION.		Total.
			Number of persons.	Tax received.	
HARTFORD,	\$47,357,309	\$94,714.62	4,115	\$7,407.00	\$102,121.62
Avon,	465,445	930.89	87	156.60	1,087.49
Berlin,	1,104,209	2,208.42	261	469.80	2,678.22
Bloomfield,	762,566	1,525.13	146	264.00	1,789.13
Bristol,	2,317,774	4,635.55	582	1,048.00	5,683.55
Burlington,	370,919	741.84	141	258.00	999.84
Canton,	1,159,084	2,318.17	207	372.60	2,690.77
East Granby, ...	488,236	976.47	56	100.80	1,077.27
East Hartford, ..	1,681,974	3,363.95	330	594.00	3,957.95
East Windsor, ...	1,153,403	2,306.81	231	415.80	2,722.61
Enfield,	2,647,193	5,294.38	497	895.00	6,189.38
Farmington, ..	1,923,895	3,847.79	349	628.20	4,475.99
Glastonbury, ...	1,116,215	2,232.43	359	646.20	2,878.63
Granby,	433,694	867.39	167	302.00	1,169.39
Hartland,	211,907	423.81	83	149.40	573.21
Manchester,	2,742,302	5,484.60	505	910.00	6,394.60
Marlborough, ..	139,861	279.72	34	61.20	340.92
New Britain, ...	6,728,753	13,457.51	1,093	1,967.40	15,424.91
Rocky Hill,	383,387	766.77	63	113.40	880.17
Simsbury,	1,195,208	2,390.41	182	327.60	2,718.01
Southington, ...	2,273,419	4,546.84	492	885.60	5,432.44
South Windsor, ..	1,386,238	2,772.46	214	396.00	3,168.46
Suffield,	1,979,000	3,958.00	253	455.40	4,413.40
West Hartford, ..	2,474,497	4,948.99	145	262.00	5,210.99
Wethersfield, ..	1,209,988	2,419.98	111	200.00	2,619.98
Windsor,	1,422,204	2,844.41	243	437.40	3,281.81
Windsor Locks, ..	718,174	1,436.35	222	444.00	1,880.35
Newington,	585,531	1,171.06	64	116.00	1,287.06
Plainville,	637,497	1,274.99	185	333.00	1,607.99
	\$87,069,872	\$174,139.74	11,417	\$20,616.40	\$194,756.14

GENERAL REVENUE — (CONTINUED).

TAXES FROM TOWNS PAYABLE NOVEMBER 10, 1886.

NEW HAVEN AND NEW LONDON COUNTIES.

TOWNS.	Grand List of October, 1885.	Tax of 2 mills on the dollar.	MILITARY COMMUTATION.		Total.
			Number of persons.	Tax received.	
NEW HAVEN, ..	\$49,473,946	\$98,947.89	7,613	\$13,703.40	\$112,651.29
Branford,	1,550,705	3,101.41	323	582.00	3,683.41
Bethany,	287,586	575.17	47	84.60	659.77
Cheshire,	1,227,685	2,455.37	148	266.40	2,721.77
Derby,	4,516,547	9,033.09	1,456	2,622.00	11,655.09
East Haven,	619,860	1,239.72	61	112.00	1,351.72
Guilford,	1,414,886	2,829.77	222	399.60	3,229.37
Hamden,	1,679,090	3,358.18	363	653.40	4,011.58
Madison,	744,329	1,488.66	136	248.00	1,736.66
Meriden,	10,206,193	20,412.39	2,133	3,839.40	24,251.79
Middlebury,	260,979	521.96	62	111.60	633.56
Milford,	1,183,244	2,366.50	246	442.80	2,809.30
Naugatuck,	1,793,888	3,587.78	532	992.00	4,579.78
North Branford,	487,410	974.82	89	172.00	1,146.82
North Haven, ..	770,381	1,540.76	185	338.00	1,878.76
Orange,	2,502,903	5,005.81	275	495.00	5,500.81
Oxford,	365,901	731.80	71	127.80	859.60
Prospect,	170,670	341.34	46	82.80	424.14
Scymour,	1,148,705	2,297.41	194	349.20	2,646.61
Southbury,	611,046	1,222.09	124	223.20	1,445.29
Waterbury,	9,520,386	19,040.77	1,948	3,506.40	22,547.17
Woodbridge, ...	413,114	826.23	73	132.00	958.23
Wallingford, ...	2,584,234	5,168.47	408	734.40	5,902.87
Wolcott,	226,092	452.18	41	74.00	526.18
Beacon Falls, ..	272,357	544.71	50	92.00	636.71
	\$94,032,137	\$188,064.28	16,846	\$30,384.00	\$218,448.28
NEW LONDON, ..	\$7,351,849	\$14,703.70	927	\$1,668.60	\$16,372.30
Norwich,	13,098,280	26,196.56	1,185	2,133.00	28,329.56
Bozrah,	397,699	795.40	64	115.20	910.60
Colchester,	1,257,511	2,515.02	251	451.80	2,966.82
East Lyme,	639,867	1,279.73	100	198.00	1,477.73
Franklin,	293,679	587.36	41	74.00	661.36
Griswold,	1,207,379	2,414.76	230	414.00	2,828.76
Groton,	1,957,435	3,914.87	459	826.20	4,741.07
Lebanon,	1,009,156	2,018.31	180	324.00	2,342.31
Ledyard,	487,762	975.40	154	277.20	1,252.60
Lisbon,	262,084	524.17	66	118.80	642.97
Lyme,	291,193	582.39	108	194.40	776.79
Montville,	1,053,606	2,107.21	252	458.00	2,565.21
No. Stonington,	715,191	1,430.38	182	327.60	1,757.98
Old Lyme,	466,960	933.92	136	244.80	1,178.72
Preston,	882,797	1,765.59	191	343.80	2,109.39
Salem,	206,446	412.89	66	118.80	531.69
Sprague,	1,164,610	2,329.22	131	236.00	2,565.22
Stonington,	5,017,923	10,035.85	590	1,062.00	11,097.85
Waterford,	1,057,720	2,115.44	217	390.60	2,506.04
Voluntown,	216,148	432.30	86	154.80	587.10
	\$39,035,235	\$78,070.47	5,626	\$10,131.60	\$88,202.07

GENERAL REVENUE — (CONTINUED).

TAXES FROM TOWNS PAYABLE NOVEMBER 10, 1886.

FAIRFIELD AND WINDHAM COUNTIES.

TOWNS.	Grand List of October, 1885	Tax of 2 mills on the dollar.	MILITARY COMMUTATION.		Total.
			Number of persons.	Tax received.	
BRIDGEPORT, ..	\$15,731,834	\$31,463.67	3,911	\$7,039.80	\$38,503.47
Danbury,	6,384,391	12,768.78	986	1,775.00	14,543.78
Bethel,	977,535	1,955.07	306	551.00	2,506.07
Brookfield,	585,478	1,170.96	83	166.00	1,336.96
Darien,	1,640,005	3,280.01	172	309.60	3,589.61
Easton,	431,513	863.03	98	176.40	1,039.43
Fairfield,	2,170,966	4,341.93	312	562.00	4,903.93
Greenwich,	4,122,705	8,245.41	644	1,159.20	9,404.61
Huntington, ...	1,385,275	2,770.55	246	442.80	3,213.35
Monroe,	504,438	1,008.88	94	170.00	1,178.88
New Canaan, ..	1,250,442	2,500.88	182	327.60	2,828.48
New Fairfield, ..	384,900	769.80	55	99.00	868.80
Newtown,	1,698,612	3,397.22	251	502.00	3,899.22
Norwalk,	5,456,605	10,913.21	891	1,603.80	12,517.01
Reading,	794,610	1,589.22	114	205.20	1,794.42
Ridgefield,	1,132,737	2,265.47	177	319.00	2,584.47
Stamford,	8,001,455	16,002.91	1,007	1,813.00	17,815.91
Sherman,	355,468	710.94	74	134.00	844.94
Stratford,	1,630,347	3,260.69	260	468.00	3,728.69
Trumbull,	632,148	1,264.30	115	207.00	1,471.30
Weston,	409,719	819.44	76	137.00	956.44
Westport,	2,106,753	4,213.51	271	487.80	4,701.31
Wilton,	703,913	1,407.83	125	225.00	1,632.83
	\$58,491,849	\$116,983.71	10,450	\$18,880.20	\$135,863.91
BROOKLYN,	\$1,480,814	\$2,961.63	111	\$200.00	\$3,161.63
Ashford,	289,759	579.52	95	172.00	751.52
Canterbury,	488,290	976.58	107	192.60	1,169.18
Chaplin,	212,800	425.60	43	84.00	509.60
Eastford,	209,309	418.62	63	114.00	532.62
Hampton,	351,866	703.73	69	125.00	828.73
Killingly,	2,178,913	4,357.83	456	820.80	5,178.63
Plainfield,	1,879,987	3,759.97	297	546.00	4,305.97
Pomfret,	785,432	1,570.86	120	216.00	1,786.86
Putnam,	1,945,973	3,891.95	280	560.00	4,451.95
Scotland,	290,729	581.46	45	90.00	671.46
Sterling,	266,091	532.18	82	148.00	680.18
Thompson,	1,744,604	3,489.21	240	480.00	3,969.21
Windham,	4,259,494	8,518.99	558	1,004.40	9,523.39
Woodstock,	951,047	1,902.09	200	360.00	2,262.09
	\$17,335,108	\$34,670.22	2,766	\$5,112.80	\$39,783.02

GENERAL REVENUE—(CONTINUED).

TAXES FROM TOWNS PAYABLE NOVEMBER 10, 1886.

LITCHFIELD AND MIDDLESEX COUNTIES.

TOWNS.	Grand List of October, 1885.	Tax of 2 mills on the dollar.	MILITARY COMMUTATION		Total.
			Number of persons.	Tax received.	
LITCHFIELD,...	\$1,980,343	\$3,960.69	343	\$617.40	\$4,578.09
Barkhamsted,...	416,393	832.78	89	160.20	992.98
Bethlehem,...	441,148	882.29	70	126.00	1,008.29
Bridgewater,...	403,060	806.12	70	126.00	932.12
Canaan,	479,669	959.34	104	187.20	1,146.54
Colebrook,	400,164	800.33	96	173.00	973.33
Cornwall,	665,366	1,330.73	122	220.00	1,550.73
Goshen,	707,423	1,414.85	102	194.00	1,608.85
Harwinton,	455,689	911.38	68	124.00	1,035.38
Kent,	482,825	965.65	119	214.20	1,179.85
Morris,	362,979	725.96	67	120.60	846.56
New Hartford,...	1,132,008	2,264.02	231	418.00	2,682.02
New Milford,...	2,026,135	4,052.27	343	617.40	4,669.67
Norfolk,	825,797	1,651.59	132	244.00	1,895.59
North Canaan,...	692,379	1,384.76	127	228.60	1,613.36
Plymouth,	974,071	1,948.14	274	498.00	2,446.14
Roxbury,	442,986	885.97	97	178.00	1,063.97
Salisbury,	1,912,851	3,825.70	244	462.00	4,287.70
Sharon,	1,303,283	2,606.56	206	370.80	2,977.36
Torrington,	1,739,174	3,478.35	412	772.00	4,250.35
Warren,	234,345	468.69	61	109.80	578.49
Washington,...	974,630	1,949.26	169	304.20	2,253.46
Watertown,	1,443,967	2,887.93	180	324.00	3,211.93
Winchester,	2,953,294	5,906.59	477	892.00	6,798.59
Woodbury,	1,006,888	2,013.78	187	338.00	2,351.78
Thomaston,	1,549,335	3,098.67	255	459.00	3,557.67
	\$26,006,202	\$52,012.40	4,645	\$8,478.40	\$60,490.80
MIDDLETOWN, ..	\$8,255,908	\$16,511.82	1,023	\$1,841.40	\$18,353.22
Haddam,	669,753	1,339.51	168	302.40	1,641.91
Chatham,	610,341	1,220.68	206	372.00	1,592.68
Chester,	476,420	952.84	131	236.00	1,188.84
Clinton,	654,740	1,309.48	125	238.00	1,547.48
Cromwell,	768,300	1,536.60	116	208.80	1,745.40
Durham,	485,730	971.46	66	126.00	1,097.46
East Haddam, ..	1,283,901	2,566.80	304	547.20	3,114.00
Essex,	919,125	1,839.25	231	415.80	2,255.05
Killingworth, ..	227,318	454.64	76	142.00	596.64
Old Saybrook, ..	1,082,719	2,165.44	87	157.00	2,322.44
Portland,	1,878,327	3,756.65	193	347.40	4,104.05
Saybrook,	578,160	1,156.32	143	268.00	1,424.32
Westbrook,	504,255	1,008.51	77	140.00	1,148.51
Middlefield,	550,406	1,100.81	101	181.80	1,282.61
	\$18,945,403	\$37,890.81	3,047	\$5,523.80	\$43,414.61

GENERAL REVENUE — (CONTINUED).

TAXES FROM TOWNS PAYABLE NOVEMBER 10, 1886.

TOLLAND COUNTY.

TOWNS.	Grand List of October, 1885.	Tax of 2 mills on the dollar.	MILITARY COMMUTATION.		Total.
			Number of persons.	Tax received.	
TOLLAND,	\$351,603	\$703.21	63	\$113.40	\$816.61
Andover,	211,629	423.26	44	80.00	503.26
Bolton,	179,064	358.13	46	82.80	440.93
Coventry,	637,514	1,275.03	190	342.00	1,617.03
Columbia,	273,437	546.87	71	127.80	674.67
Ellington,	734,430	1,468.86	100	184.00	1,652.86
Hebron,	455,035	910.07	102	183.60	1,093.67
Mansfield,	610,877	1,221.75	173	320.00	1,541.75
Somers,	595,051	1,190.10	158	284.40	1,474.50
Stafford,	1,085,823	2,171.65	397	715.00	2,886.65
Union,	148,433	296.87	53	96.00	392.87
Vernon,	2,744,966	5,489.93	676	1,216.80	6,706.73
Willington,	233,929	467.86	86	172.00	639.86
	\$8,261,791	\$16,523.59	2,159	\$3,917.80	\$20,441.39

RECAPITULATION.

COUNTIES.	Grand List of October, 1885.	Tax of 2 mills on the dollar.	MILITARY COMMUTATION.		Total.
			Number of persons.	Tax received.	
HARTFORD,	\$87,069,872	\$174,139.74	11,417	\$20,616.40	\$194,756.14
New Haven, ...	94,032,137	188,064.28	16,846	30,384.00	218,448.28
New London, ..	39,035,235	78,070.47	5,626	10,131.60	88,202.07
Fairfield,	58,491,849	116,983.71	10,450	18,880.20	135,863.91
Windham,	17,335,108	34,670.22	2,766	5,112.80	39,783.02
Litchfield,	26,006,202	52,012.40	4,645	8,478.40	60,490.80
Middlesex,	18,945,403	37,890.81	3,047	5,523.80	43,414.61
Tolland,	8,261,791	16,523.59	2,159	3,917.80	20,441.39
	\$349,177,597	\$698,355.22	56,956	\$103,045.00	\$801,400.22

TAX ON SAVINGS BANKS.

NAME OF BANK.	Deposits Taxable January 1, 1887.	January Tax, 1887.	July Tax on Deposits report- ed January, 1886.
Berlin Savings Bank,.....	\$124,390.63	\$155.48	\$148.15
Bridgeport "	2,812,754.03	3,515.94	3,384.58
Bristol "	857,442.40	1,071.81	978.96
Brooklyn "	519,490.08	649.36	572.80
Canaan "	66,068.51	82.58	80.88
Chelsea " Norwich,....	3,328,950.79	4,161.19	3,972.24
Chester "	85,250.34	106.56	89.85
Citizens " Stamford,....	1,063,933.45	1,329.91	1,208.28
City " Bridgeport,..	2,229,084.59	2,786.36	2,505.89
City " Meriden,.....	540,999.38	676.25	645.78
Colchester "	179,137.45	223.92	216.99
Collinsville Savings Society,.....	284,287.75	355.36	325.26
Connecticut Sav. Bank, New Haven,	3,584,593.71	4,480.74	4,093.82
Cromwell Dime "	59,842.86	74.80	67.87
Derby Savings Bank,.....	1,334,498.14	1,668.12	1,589.50
Deep River "	619,863.17	774.83	717.28
Dime " Hartford,....	286,649.35	358.31	306.88
Dime " Norwich,....	1,055,601.54	1,319.50	1,246.27
Dime " Thompson,..	363,196.38	454.00	442.50
Dime " Wallingford,	145,881.35	182.35	162.25
Dime " Waterbury,...	1,333,920.45	1,667.40	1,516.55
Dime " Willimantic,...	562,017.89	702.53	631.35
Essex "	482,481.92	603.10	585.14
Fairfield Co. " Norwalk,....	346,701.20	433.37	439.97
Falls Village "	400,469.83	500.58	444.82
Farm. & Mch. " Middletown,...	1,059,419.57	1,324.27	1,276.84
Farmington "	1,826,855.95	2,283.57	2,225.30
Freestone " Portland,	228,007.66	285.01	231.34
Greenwich "	119,005.06	148.76	140.59
Groton " Mystic River,	494,209.19	617.76	616.53
Guilford, "	94,260.04	117.83	125.14
Jewett City "	512,884.97	641.11	630.00
Litchfield Savings Society,.....	709,469.55	886.84	862.24
Mariners Sav. Bank, New London,	1,290,923.78	1,613.66	1,537.52
Mechanics " Hartford,....	1,486,411.78	1,858.01	1,626.68
Mechanics " Winsted,	536,669.87	670.76	617.34
Mch. & Farm. " Bridgeport,..	535,882.13	669.85	545.90
Meriden "	1,642,999.70	2,053.74	1,881.16
Middletown "	4,591,104.00	5,738.88	5,647.16
Millford "	115,972.42	144.96	128.93
Moodus "	129,415.40	161.77	147.75
National " New Haven,...	666,142.74	832.68	773.46
Naugatuck "	230,335.73	287.92	223.03
Amount forward,.....	\$38,937,416.73	\$48,671.73	\$45,610.77

TAX ON SAVINGS BANKS—(CONTINUED).

NAME OF BANK.	Deposits Taxable January 1, 1887.	January Tax, 1887.	July Tax on Deposits reported January, 1886.
Amount brought forward,.....	\$38,937,416.73	\$48,671.73	\$45,610.77
New Haven Savings Bank,.....	5,023,113.38	6,278.89	5,796.91
New Milford "	607,899.81	759.88	755.16
Newtown "	319,819.06	399.78	373.41
Norfolk "	96,749.02	120.94	114.53
Norwalk Savings Society,.....	1,645,033.47	2,056.29	1,961.38
Norwich "	7,762,063.97	9,702.58	9,353.26
Peoples Savings Bank, Bridgeport, .	1,614,368.80	2,017.96	1,879.43
Peoples " Rockville, ...	241,328.67	301.66	289.45
Putnam "	839,650.87	1,049.56	956.87
Ridgefield "	54,204.86	67.76	49.98
Salisbury Savings Society, Lakeville,	389,836.48	487.29	495.51
Savings Bank of Ansonia,.....	744,429.67	930.54	842.91
" " Danbury,	1,691,530.32	2,114.42	2,019.08
" " New Britain,.....	1,476,417.94	1,845.52	1,649.37
" " New London,....	3,099,351.34	3,874.19	3,738.87
" " Rockville,.....	789,137.75	986.42	959.42
" " Stafford Springs, .	292,990.43	366.24	335.65
" " Tolland,.....	37,519.21	46.90	40.89
Society for Savings, Hartford,....	9,698,460.54	12,123.07	11,409.14
Southington Sav. Bank,.....	458,490.69	573.11	513.46
South Norwalk "	353,872.36	442.34	374.89
Southport "	433,979.85	542.48	507.69
Stafford " Staf. Springs,	449,982.13	562.48	551.39
Stamford "	1,785,301.61	2,231.62	2,057.82
State " Hartford,....	1,841,727.11	2,302.16	2,135.93
Stonington "	493,724.74	615.90	629.10
Suffield "	70,063.86	87.58	93.31
Thomaston "	250,589.31	313.24	301.51
Torrington "	294,223.70	367.78	337.52
Union " Danbury,....	693,535.31	866.92	819.39
Waterbury "	2,372,816.13	2,966.02	2,793.30
Westport "	39,799.74	49.75	44.38
Willimantic Savings Institute,....	732,600.16	915.75	830.06
Windham Co. Sav. B'k, Dan'lsonv'e,	434,966.06	543.70	563.03
Windsor Locks "	32,740.26	40.93	.....
Winsted "	961,549.59	1,201.94	1,177.62
Woodbury "	77,052.15	96.32	109.69
	\$87,137,337.18	\$108,921.64	\$102,472.08

Amount of January tax, 1887,..... \$108,921.64
 Balance of July tax, 1886, on Deposits reported January, 1886,.. 102,472.08
 Total Savings Bank taxes for fiscal year ending June 30, 1887,... \$211,393.72

TAX ON MUTUAL FIRE INSURANCE COMPANIES.

NAME OF COMPANY.	Location.	Assets.	Amount Taxable.	Tax $\frac{3}{4}$ of 1 per cent.
Danbury Mu. Fire Ins. Co.,	Danbury,	\$33,436.67	\$20,535.17	\$154.01
Farmers " "	Sutfield,	22,819.59	912.59	6.84
Farmington Valley Mu. Fire Insurance Company,	Farmington,	20,931.14	7,262.50	54.47
Greenwich Mu. Fire Ins. Co.,	Greenwich,	21,959.42	6,325.89	47.44
Hartford Co. " "	Hartford,	367,109.34	330,909.34	2,481.82
Litchfield " "	Litchfield,	93,455.72	81,805.42	613.54
Madison " "	Madison,	30,527.28	6,458.53	48.40
Middlesex Mu. Assur. Co.,	Middletown,	566,649.77	450,807.77	3,381.06
Norwich " "	Norwich,	12,282.55	10,615.93	79.62
New London Co. Mu. Fire Insurance Company,	Norwich,	79,541.53	79,541.53	596.56
Rockville Mu. Fire Ins. Co.,	Rockville,	16,893.57	6,969.87	52.27
State " "	Hartford,	84,038.46	41,519.58	311.40
Tolland Co. " "	Tolland,	373,696.36	83,459.36	625.95
Washington " "	Washington,	416.08	416.08	3.12
Windham Co. " "	Brooklyn,	332,213.95	61,827.70	463.70
Harwinton " "	Harwinton,	13,657.31	103.91	78
		\$2,069,628.74	\$1,189,471.17	\$8,920.98

TAX ON MUTUAL LIFE INSURANCE COMPANIES.

NAME OF COMPANY.	Location.	Assets.	Amount Taxable.	Tax $\frac{1}{4}$ of 1 per cent.
Ætna Life Insurance Co.,	Hartford.	\$31,545,930.77	\$24,283,426.86	\$60,708.57
Connecticut General Life Insurance Co.,	"	1,539,872.75	897,928.15	2,244.82
Connecticut Mutual Life Insurance Co.,	"	54,616,616.37	53,173,245.88	132,933.11
Continental Life Insurance Co.,	"	2,012,295.39	645,242.61	1,635.61
Phoenix Mutual Life Insurance Co.,	"	10,288,599.72	9,452,710.08	23,631.78
		\$100,003,315.00	\$88,461,553.58	\$221,153.89

TAX ON MUTUAL LIFE INSURANCE COMPANIES OF
MASSACHUSETTS ON THE VALUE OF POLICIES
ISSUED BY THEM AND HELD BY RESIDENTS OF
CONNECTICUT.

NAME OF COMPANY.	Location.	Valuation of Policies, Dec. 31, 1885.	Tax $\frac{1}{4}$ of 1 per cent.
Berkshire Life Insurance Co.,.....	Pittsfield,	\$44,062.80	\$110.15
John Hancock Mutual Life Ins. Co.,...	Boston,	74,591.00	186.48
John Hancock Mu. Life Ins. Co., balance of tax items omitted in 1882 and 1883,	Boston,	10,449.00	26.12
Massachusetts Mutual Life Ins. Co.,....	Springfield,	262,986.00	657.47
State Mutual Life Insurance Co.,.....	Worcester,	65,727.96	164.32
		\$457,816.76	\$1,144.54

TAX ON NON-RESIDENT STOCK.

NAME OF CORPORATION.	Location.	Number of shares.	Market value of each share.	Tax one per cent.
Ætna Life Insurance Co.,.....	Hartford,	767	\$180.00	\$1,380.60
Connecticut General Life Ins. Co.,	"	304	115.00	349.60
Continental Life Insurance Co.,...	"	242	5.00	12.10
Hartford Life & Annuity Ins. Co.,	"	152	117.00	177.84
Phoenix Mutual Life Ins. Co.,....	"	231	125.00	288.75
The Travelers Insurance Co.,....	"	1,171	255.00	2,986.05
Ætna Insurance Co.,.....	"	13,350	220.00	29,370.00
Connecticut Fire Insurance Co.,...	"	2,139	105.00	2,245.95
Hartford Fire Insurance Co.,.....	"	5,694	250.00	14,235.00
H'd Steam Boiler Insp. & Ins. Co.,	"	1,223	95.00	1,161.85
Meriden Fire Insurance Co.,.....	Meriden,	159	55.00	87.45
National Fire Insurance Co.,.....	Hartford,	2,181	110.00	2,399.10
Norwalk Fire Insurance Co.,.....	Norwalk,	64	25.00	16.00
Orient Insurance Co.,.....	Hartford,	2,556	70.00	1,789.20
Peoples Fire Insurance Co.,.....	Middletown,	130	60.00	78.00
Phoenix Insurance Co.,.....	Hartford,	6,721	150.00	10,081.50
Security Insurance Co.,.....	New Haven,	786	30.00	235.80
City Bank,.....	Hartford,	240	83.00	199.20
Conn. Trust and Safe Deposit Co.,	"	153	125.00	191.25
Equitable Trust Co.,.....	New London,	12,604	40.00	5,041.60
Hartford Trust Co.,.....	Hartford,	317	100.00	317.00
Middlesex Banking Co.,.....	Middletown,	609	114.00	694.26
Saybrook Bank of Essex,.....	Essex,	63	50.00	31.50
Security Co.,.....	Hartford,	101	120.00	121.20
State Bank,.....	"	640	100.00	640.00
Thompsonville Trust Co.,.....	Thomp'ville,	175	25.00	43.75
Union Bank,.....	New London,	351	90.00	315.90
United States Bank,.....	Hartford,	10	175.00	17.50
Hartford Bridge Co.,.....	"	90 $\frac{1}{2}$	170.00	153.57
Connecticut Fire Insurance Co.,...	"	10	105.00	10.50
				\$74,672.02

TAX ON RAILROADS.

NAME OF RAILROAD.		Number of shares of stock.	Market value of each share of stock.	Amount of fund- ed and floating debt.	Market value of funded and floating debt.
1	Bridgeport Horse Railroad,.....	1,400	\$16.00	\$61,576.76	\$61,576.76
2	Bridgep't & W. Stratford H. R. R.,	1,000	12.50		
3	Fair Haven & Westville H. R. R.,	12,000	20.00		
4	Hartford & Wethersfield H. R. R.,	1,997	105.00	82,785.07	82,785.07
5	Middletown Horse Railroad,.....	800	20.00	7,188.73	7,188.73
6	New Haven & Centerville Horse R. R. (Trustee),.....				35,000.00
7	N. Haven & West Haven H. R. R.,	2,454	9.00	39,000.00	39,000.00
8	Norwalk Horse Railroad,.....	2,000	20.00	650.00	650.00
9	Norwich Street Railway,.....	200	100.00		
10	State Street H. R. R., New Haven,	923	18.75	14,100.00	14,100.00
11	Westport & Saugatuck H. R. R.,	150	105.00		
12	{ Boston & New York Air Com.,	8,361			
	{ Line R. R.,..... Pf'd.,	29,890	80.00	500,000.00	500,000.00
13	Colchester Railway,.....	250		25,000.00	25,000.00
14	Connecticut Central Railroad,....	4,485		325,000.00	162,500.00
15	Danbury & Norwalk Railroad,...	11,998	45.00	695,000.00	695,000.00
16	Hartford & Conn. Valley R. R.,...	7,232	80.00	60,400.00	60,400.00
17	Hartford & Conn. Western R. R.,	25,502	7.00	625,000.00	625,000.00
18	{ Housatonic Railroad,..... Old,	8,200			
	{ Housatonic Railroad,..... Pf'd.,	11,800	110.00	1,383,816.00	1,383,816.00
19	Meriden & Cromwell R. R.,.....	3,000	30.00	48,482.39	48,482.39
20	Naugatuck R. R.,.....	20,000	175.00	150,000.00	150,000.00
21	New Haven & Derby R. R.,.....	4,466	12.50	600,000.00	525,000.00
22	New Haven & Northampton R. R.,	24,600	12.00	3,975,000.00	3,975,000.00
23	New London Northern R. R.,.....	15,000	112.00	1,634,500.00	1,634,500.00
24	{ N. Y. & N. England R. R., Com.,	193,130	25.00	480,992.50	480,992.50
	{ N. Y. & N. England R. R., Pf'd.,	19,000	120.00	14,361,000.00	14,311,000.00
25	N. Y., Providence & Boston R. R.,	30,000	170.00	1,300,000.00	1,300,000.00
26	N. Y., N. H., & Hartford R. R.,...	155,000	180.00	2,559,704.55	2,559,704.55
27	Norwich & Worcester R. R.,.....	25,978	150.00	400,000.00	400,000.00
28	{ Rockville R. R.,..... Com.,	687	1.00		
	{ Rockville R. R.,..... Pf'd.,	400	100.00	17,500.00	17,500.00
29	Shepaug R. R.,.....	3,000		400,000.00	95,000.00
30	Shore Line Railway,.....	10,000	135.00	200,000.00	200,000.00
31	South Manchester R. R.,.....	400	15.00	15,900.00	15,900.00
32	Stamford & New Canaan R. R.,...	998 ⁵⁷ / ₁₀₀	75.00		
33	Watertown & Waterbury R. R.,...	2,364		19,000.00	3,800.00

TAXES FROM AGENTS OF INSURANCE COMPANIES OF OTHER STATES.

AGENTS.	Location.	Amount of Tax.
Joseph C. Hart,.....	Hartford,	\$199.76
William A. Lester,.....	Plainfield,	3.65
Timothy Jones,.....	Danbury,	68.87
Elihu Hall,.....	Wallingford,	17.91
Charles Cameron,.....	Greenwich,	5.68
Louis H. Lyon,.....	Bridgeport,	24.52
L. S. Platt,.....	Naugatuck,	25.02
H. A. Hubbard,.....	Stamford,	32.05
P. R. Strong,.....	Colchester,	2.48
C. F. Harwood,.....	Stafford Springs,	78.57
J. G. Goodwin,.....	New Hartford,	16.36
Geo. L. Beardsley,.....	Birmingham,	38.28
S. Hart Culver,.....	Seymour,	17.00
A. E. Hull,.....	Ansonia,	3.46
Fanny A. Bristol,.....	Cheshire,	4.49
Asa Perkins, 2d,.....	Groton,	.94
E. N. Hubbard,.....	Middletown,	66.56
L. A. Dickinson,.....	Hartford,	54.61
B. R. Allen,.....	"	106.31
Fuller & Hoyt,.....	New Milford,	1.81
Wm. W. Andrews,.....	Rockville,	59.98
Frank H. Hoyt,.....	Stamford,	31.29
L. Bissell & Son,.....	Rockville,	30.12
Osborn & Price,.....	Hartford,	35.77
Smith & Root,.....	Waterbury,	874.36
Melville E. Mead,.....	Darien,	2.63
Charles Griswold,.....	Guilford,	1.86
Andrew J. Ewen,...	Birmingham,	1.14
Wm. G. Lineburgh & Son,.....	Bridgeport,	15.93
Marsh, Merwin & Lemmon,.....	"	414.05
Daniel Sanford,.....	Redding Ridge,	.09
C. B. Bowers,.....	New Haven,	221.71
Amos S. Northrop,.....	New Canaan,	7.91
J. F. Williams,.....	Norwich,	150.10
Albert Morton,.....	New Britain,	23.14
Frederick B. Hoadley,.....	Waterbury,	8.26
W. C. Mead,.....	Bridgeport,	10.01
Howard G. Bestor,.....	Hartford,	7.08
Edmund A. Stedman,.....	"	8.28
Hall & Sturtevant,.....	Meriden,	85.91
Sperry & Kimberly,.....	New Haven,	496.65
Joseph Fuller & Co.,.....	Suffield,	13.39
J. Hemingway,.....	Southington,	69.08
Geo. D. Coit,.....	Norwich,	47.00
C. C. Kimball & Co.,.....	Hartford,	772.28
Samuel N. Coddling,.....	Collinsville,	13.31
A. F. Abbott & Son,.....	Waterbury,	22.79
C. S. Treadway,.....	Bristol,	48.52
Frederick A. Taff,.....	Stamford,	50.28
A. A. McNeil,.....	Lime Rock,	29.49
Judson & Beardsley,.....	Stratford,	14.98
Wm. E. Baker,.....	Hartford,	471.06
Amount carried forward,.....		\$4,816.78

TAXES FROM AGENTS OF INSURANCE COMPANIES OF
OTHER STATES — (CONTINUED).

AGENTS.	Location.	Amount of Tax.
Amount brought forward,.....		\$4,816.78
W. H. Squire & Co.,.....	Meriden,	352.56
M. N. Griswold,.....	Winsted,	102.45
Geo. H. Stoughton,.....	Thomaston,	22.66
Salmon C. Gillette,.....	Colchester,	25.14
Geo. E. Judd,.....	Waterbury,	36.57
N. T. Bulkley,.....	Danbury,	167.18
J. M. Layton,.....	South Norwalk,	189.64
D. T. Hubbell,.....	Bethel,	26.17
George B. Fisher,.....	Hartford,	252.82
E. E. Isbell,.....	Branford,	10.34
Wm. H. Smith,.....	Plainville,	2.84
H. N. Trumbull,.....	Stonington,	19.45
M. S. Greene,.....	"	1.71
Henry A. Baker,.....	Montville,	10.95
C. S. Braddock,.....	New London,	6.86
Samuel H. Bently,.....	Mystic,	32.63
J. N. Stickney,.....	Rockville,	89.49
O. B. Grant,.....	Stonington,	9.47
G. P. Edwards,.....	Collinsville,	23.03
Wm. H. Rogers,.....	Hartford,	3.97
L. S. Catlin,.....	Bridgeport,	188.98
C. F. Starr,.....	New London,	98.74
Bigelow & Stevens,.....	Danbury,	225.78
Isaac W. Brooks,.....	Torrington,	34.72
H. C. Warren,.....	New Haven,	356.63
Nelson J. Welton,.....	Waterbury,	148.27
Franklin L. Welton,.....	"	49.98
Geo. J. Faulhaber,.....	New Haven,	28.69
Alden A. Baker,.....	Colchester,	11.76
A. H. Lane,.....	P't Chester, N. Y.,	2.64
David Brainard,.....	Thompsonville,	12.73
C. A. Todd,.....	New Milford,	76.42
A. E. Bartram & Co.,.....	Bridgeport,	58.40
Silas F. Loomer,.....	Willimantic,	139.07
N. A. McNeil & Co.,.....	Lime Rock,	165.04
Geo. R. Bull & Co.,.....	Kent,	4.84
M. L. Dunn,.....	Stamford,	4.15
C. H. Bronson,.....	Waterbury,	66.69
D. H. Clark,.....	Stamford,	99.98
Soule & Staub,.....	New Milford,	4.50
J. H. Hayden & Son,.....	Windsor Locks,	7.05
Oliver F. Perry,.....	Collinsville,	15.03
H. W. Conklin,.....	Hartford,	28.71
W. B. Brotherton,.....	Milford,	10.11
Thomas S. Collier,.....	New London,	20.69
B. A. Russell,.....	Greenwich,	59.59
Bacon & Guy,.....	Middletown,	151.79
Silas Chapman, Jr.,.....	Hartford,	591.31
Wm. H. Spedding,.....	Stafford Springs,	30.07
J. P. Lathrop & Son,.....	Norwich,	14.39
Elbert White,.....	Stamford,	15.02
Amount carried forward,.....		\$8,924.48

TAXES FROM AGENTS OF INSURANCE COMPANIES OF
OTHER STATES — (CONTINUED).

AGENTS.	Location.	Amount of Tax.
Amount brought forward,.....		\$8,924.48
Joseph Schwab,.....	Hartford,	23.39
Miles L. Peck,.....	Bristol,	271.02
A. W. Converse,.....	Windsor Locks,	3.69
Thomas E. Packer & Co.,.....	Mystic River,	99.96
J. W. Pond,.....	New Haven,	62.07
Wm. H. Potter,.....	Mystic River,	35.46
J. F. Noble,.....	Bridgeport,	16.65
Benj. F. Hawley,.....	Bristol,	3.08
P. S. Bristol,.....	Milford,	.29
Charles Rider,.....	Danbury,	113.83
Ralph L. Gillett,.....	Hartford,	250.96
Jared C. Bradley,.....	New Haven,	18.38
W. M. Hall,.....	Wallingford,	35.53
Horace Purdy,.....	Danbury,	44.07
B. J. Sturges,.....	Norwalk,	37.24
Fuller & Story,.....	Norwich,	223.95
Ralph L. Gillett,.....	Hartford,	13.44
Alfred T. Goodsell,.....	Westport,	.87
Benjamin Page,.....	Meriden,	139.15
A. Irving Royce,.....	Norwich,	128.35
Selden & Royce,.....	"	42.63
Edson Thomas,.....	Thomaston,	23.05
Wilson, McNeil & Co.,.....	New Haven,	1,312.10
J. G. & J. C. North,.....	"	563.18
James Staples & Co.,.....	Bridgeport,	735.31
Franklin Smith,.....	Enfield,	57.55
A. J. Bower,.....	Willimantic,	28.64
Wm. C. Atwater,.....	Birmingham,	823.65
W. A. Cone,.....	East Haddam,	47.90
S. T. Beecher & Son,.....	New Milford,	23.85
John H. Hall,.....	Westport,	30.92
Egbert Bartlett,.....	Ansonia,	136.78
John C. Broatch,.....	Middletown,	29.09
Germania Ins. Co., N.Y., for J.G. & J.C. North,	New Haven,	7.17
G. & N. A. Cowles,.....	New Britain,	46.67
M. W. Lawton,.....	Middletown,	.45
Henry Bradley,.....	Seymour,	2.62
T. T. Street,.....	Hartford,	5.60
C. V. Mason,.....	Bristol,	69.61
C. L. Mason & Son,.....	"	8.59
Mason & Ayer,.....	Unionville,	61.93
Mason & Taft,.....	"	36.81
John F. Parker,.....	Norwich,	165.04
Geo. M. Carrington,.....	West Winsted,	49.51
John Dayton,.....	Greenwich,	11.75
W. A. Hitchcock,.....	Unionville,	9.13
J. C. Learned & Sons,.....	New London,	339.97
Goodsell, McNeil & Co.,.....	Bridgeport,	343.71
Theodore Hoyt,.....	Danbury,	390.84
Daniel W. Chase,.....	Middletown,	8.76
Oliver D. Seymour,.....	Hartford,	1.19
Amount carried forward,.....		\$15,859.86

TAXES FROM AGENTS OF INSURANCE COMPANIES OF
OTHER STATES — (CONTINUED).

AGENTS.	Location.	Amount of Tax.
Amount brought forward,.....		\$15,859.86
C. K. Hunt,.....	West Winsted,	114.22
Henry H. Perry,.....	Southport,	5.84
C. K. Montgomery,.....	Bristol,	.37
Henry C. Weaver,.....	New London,	58.62
Josiah Raymond,.....	Westport,	42.23
Sidney W. Crofut,.....	Danielsonville,	92.90
C. E. Bristol,.....	Plainville,	3.61
Geo. L. Beardsley,.....	Birmingham,	14.58
Hinman & Cooke,.....	New Haven,	4.37
N. M. Cooke, Jr.,.....	"	1.84
Joseph W. Chandler,.....	Stafford,	3.90
H. L. Crofut,.....	Danbury,	3.49
Lucius Fuller,.....	Tolland,	1.40
"Imperial Fire Insurance Company" of Eng- land, for Thomas Foran,.....	Willimantic,	3.02
Osgood & Park,.....	Putnam,	2.30
C. L. Mason,.....	New Britain,	10.75
J. & F. E. Ely,.....	Thompsonville,	29.08
Geo. B. Smith,.....	Westport,	.22
W. F. Walker,.....	New Britain,	21.52
T. & G. P. Edgar,.....	New London,	144.96
Cowles & Merrill,.....	Norwalk,	338.04
Homer Merrill,.....	"	28.77
L. H. Fuller,.....	Putnam,	44.15
E. T. Spooner,.....	Warehouse Point,	19.89
George Lloyd,.....	Danielsonville,	37.11
Roxana Buell,.....	Clinton,	4.45
Wm. E. Disbrow,.....	Bridgeport,	.74
Oscar Tourtelotte,.....	N. Grosvenordale,	1.36
A. E. Dudley & Son,.....	New Haven,	144.01
Thomas Foran,.....	Willimantic,	.68
Hinman & Cooke,.....	New Haven,	5.56
L. W. Finney,.....	Mianus,	1.10
Weld & Son,.....	New Haven,	27.37
D. K. Murphy,.....	Meriden,	21.07
C. H. Holt,.....	Rockville,	2.28
J. S. Anderson,.....	Stonington,	3.10
H. C. Baldwin,.....	Naugatuck,	5.39
Gardner Morse,.....	New Haven,	30.03
S. B. Terry,.....	Waterbury,	5.22
T. L. J. Bullus,.....	Birmingham,	8.70
Westchester Fire Insurance Company of N. Y., for P. C. Rolli,.....	Stamford,	.63
American Fire Insurance Company of Phila., for Geo. H. Hall,.....	Guilford,	.22
P. C. Rolli,.....	Stamford,	7.46
Citizens Ins. Co., Phila., for E. B. Dillingham,	Hartford,	7.25
Union Ins. Co., Phila., for Higby & DeForest,	Bridgeport,	27.43
P. P. Wilson,.....	Putnam,	.70
J. L. Walden,.....	Willimantic,	7.78
C. M. Webster & Co.,.....	Hartford,	10.00
Amount carried forward,.....		\$17,209.57

TAXES FROM AGENTS OF INSURANCE COMPANIES OF
OTHER STATES — (CONTINUED).

AGENTS.	Location.	Amount of Tax.
Amount brought forward,.....		\$17,209.57
E. B. Dillingham,.....	Hartford,	27.08
Alfred Spencer,.....	Suffield,	4.93
F. E. Camp,.....	Middletown,	29.75
John H. Sage,.....	Portland,	21.65
American Steam Boiler Insurance Company, for Satterlee Swartwout,.....	Stamford,	18.00
L. A. Camp,.....	Seymour,	1.48
B. P. Larned,.....	Norwich,	176.76
L. P. Treadwell,.....	Danbury,	83.40
Arthur G. Bill,.....	Danielsonville,	36.54
E. B. Cowles,.....	Meriden,	349.63
A. L. Otis,.....	Meriden,	3.84
A. G. Butler,.....	Middletown,	117.38
A. L. Thayer,.....	Collinsville,	58.73
R. B. Craufurd,.....	Norwalk,	20.89
C. V. Mason,.....	Bristol,	13.85
W. H. Fuller,.....	Suffield,	8.84
G. W. Dickinson,.....	Essex,	7.79
Joseph C. Flynn,.....	Naugatuck,	.67
C. J. Allen,.....	Bethel,	60.28
John B. Reed, Jr.,.....	Stamford,	15.94
"Providence Washington Insurance Com- pany" of R. L. for Sidney W. Crofut,.....	Danielsonville,	5.43
A. B. Fairchild,.....	Bridgeport,	137.14
W. N. White,.....	Stamford,	68.45
T. S. Brown,.....	East Hampton,	9.68
C. B. Coolidge,.....	Norwalk,	7.57
Harry Bell,.....	Stamford,	297.84
J. G. Jones,.....	Waterbury,	113.46
John W. Marvin,.....	Deep River,	83.52
T. S. Birdseye,.....	Birmingham,	55.38
L. S. Beget,.....	Stamford,	32.59
Hinman & Cooke,.....	New Haven,	16.57
"Germania Insurance Company" of N. Y., for W. L. Wilcox,.....	South Norwalk,	.50
J. H. Hill,.....	New London,	120.06
Walter L. Wilcox,.....	South Norwalk,	153.92
A. B. Adams,.....	Willimantic,	52.55
W. H. Squire & Co.,.....	Meriden,	29.67
Haines & Jackson,.....	Middletown,	17.62
Cannon & Burton,.....	New Haven,	542.59
John Lindley & Son,.....	Ansonia,	134.36
A. T. & M. Roraback,.....	Canaan,	32.37
C. B. Bishop,.....	Litchfield,	30.96
"Liverpool, London & Globe Insurance Com- pany" of England, for G. W. Glendenning,.....	Stamford,	20.10
Isabella C. Morris,.....	New Britain,	.74
Wm. C. Atwater,.....	Birmingham,	16.09
H. T. Nichols,.....	Newtown,	9.94
John Mulville,.....	Greenwich,	8.61
Lester H. Phillips,.....	New London,	6.37
Amount carried forward,.....		\$20,271.08

TAXES FROM AGENTS OF INSURANCE COMPANIES OF
OTHER STATES — (CONTINUED).

AGENTS.	Location.	Amount of Tax.
Amount brought forward,.....		\$20,271.08
A. L. Otis,.....	Meriden,	1.07
"American Steam Boiler" Insurance Company of New York, for Thomas H. Perkins,.....	Norwich,	7.22
H. D. Hall,.....	Middletown,	79.74
C. M. Webster & Co.,.....	Hartford,	473.50
H. P. Topliff,.....	South Coventry,	5.56
Daniel Hanrahan,.....	Stamford,	7.17
Markley Brothers,.....	New Britain,	6.53
C. A. Eaton,.....	Kent,	1.27
Silas Chapman, Jr.,.....	Hartford,	561.24
Higby & DeForest,.....	Bridgeport,	521.63
A. L. Stevens,.....	Meriden,	68.73
Geo. L. DeForest,.....	Birmingham,	1.85
O. E. Wilson,.....	Norwalk,	193.50
Gardner Morse,.....	New Haven,	197.35
W. J. Breckenridge,.....	Middletown,	3.59
C. H. Cheesebro,.....	Putnam,	88.75
John F. Parker,.....	Norwich,	18.18
C. G. Johnson & Co.,.....	Meriden,	64.37
C. G. Johnson & Co., for A. L. Stevens,.....	Meriden,	17.24
Thornton C. Brooks,.....	Unionville,	1.49
C. A. Northend,.....	New Britain,	136.73
J. E. Leonard,.....	Norwich,	7.91
Fuller & Beardsley,.....	Danbury,	.88
C. A. Northend,.....	New Britain,	267.86
Goodsell Brothers,.....	Bridgeport,	140.08
Geo. H. Sage,.....	Berlin,	.07
C. S. Thompson,.....	New Haven,	407.04
Geo. W. Randall,.....	Rockville,	5.39
Walter L. Wilcox,.....	South Norwalk,	14.95
H. H. Scribner,.....	Bridgeport,	134.91
L. P. Dean,.....	Falls Village,	.43
J. D. Humphrey,.....	New Britain,	60.88
Geo. Palmer,.....	Branford,	2.74
E. H. Johnson,.....	Putnam,	7.42
G. B. Lawrence,.....	Waterbury,	49.37
Williams & Lawrence,.....	Waterbury,	29.01
S. Y. St. John,.....	New Canaan,	9.92
C. N. Andrews,.....	Willimantic,	61.32
Edward Rawlings, Manager for C. C. Kimball & Co.,.....	Hartford,	1.35
Total,.....		\$23,929.32

TAX ON PREMIUMS OF INSURANCE COMPANIES OF OTHER STATES.

Name of Corporation.	Class of Premiums.	Rate of Tax.	Amount of Premiums.	Tax.
Union Mut. Life Ins. Co., Portland, Me.,.....	Net,	2 p. c.	\$3,635.54	\$72.67
American Central Fire Ins. Co., St. Louis, Mo.,.....	"	2 p. c.	168.39	3.37
Milwaukee Mechanics Mutual Fire Ins. Co., Wisconsin,.....	Gross,	2 p. c.	6,720.90	134.22
Northwestern National Ins. Co., Milwaukee, Wis.,.....	"	2 p. c.	3,384.53	67.69
Union Central Life Ins. Co., Cincinnati, O.,.....	"	2 p. c.	653.43	13.07
Penn Mutual Life Ins. Co., Philadelphia, Pa.,.....	"	3 p. c.	19,873.51	596.21
Imperial Life Ins. Co., Detroit, Mich.,.....	"	2 p. c.	214.04	4.28
Vermont Life Ins. Co., Burlington, Vermont,.....	"	2 p. c.	403.83	8.08
				\$899.59

TAX ON EXPRESS COMPANIES.

NAME OF COMPANY.	Location.	Receipts.	Tax, 2 per cent.
Adams Express Company,	New York,	\$440,298.11	\$8,805.96
International Express,.....	Birmingham	1,271.14	25.42
International Express,.....	Bridgeport,	144.02	2.88
International Express,.....	Hartford,	4,318.13	86.36
International Express,.....	New Haven,	3,713.48	74.27
N. Y. & Boston Dispatch Express Co.,	Boston,	4,978.11	99.56
		\$454,722.99	\$9,094.45

TAX ON TELEGRAPH AND TELEPHONE COMPANIES.

NAME OF COMPANY.	Location.	Receipts.	Tax, 2 per cent.
Baltimore and Ohio Telegraph Co.,...	New York,	\$9,643.02	\$192.86
Bankers and Merchants Telegraph Co.,	"	543.17	10.86
Commercial Cable Co.,.....		799.86	16.00
Postal Telegraph Cable Co.,.....	New York,	8,678.44	173.56
Southern New England Telephone Co.,	New Haven,	180,301.89	3,606.03
Western Union Telegraph Co.,.....	New York,	155,759.42	3,115.19
		\$355,725.80	\$7,114.50

AVAILS OF COURTS FROM CLERKS.

County.	Name of Clerk.	Court.	Amount.	Total.
Hartford,...	Charles W. Johnson,....	Superior,.....	\$447.00	\$892.98
Windham,...	David Greenslit,*.....		30.00	
Litchfield,...	Wm. F. Hurlbut,.....	Common Pleas,	107.94	
Hartford,...	Charles E. Fellowes,....	" "	308.04	

FINES, FORFEITURES, ETC., FROM STATE'S ATTORNEYS.

County.	Name of Attorney.	Amount.	
Litchfield,...	James Huntington,.....	\$1,802.11	\$21,651.21
Hartford,...	William Hamersley,.....	4,183.72	
New Haven,...	Tilton E. Doolittle,.....	7,255.65	
Tolland,...	B. H. Bill,.....	649.39	
Middlesex,...	William T. Elmer,.....	1,145.23	
New Haven,...	George E. Terry (Asst. State's Attorney),.	1,343.81	
Fairfield,...	Samuel Fessenden,.....	2,611.89	
Windham,...	John I. Penrose,.....	2,659.41	
			\$22,544.19

*Administrator of estate of E. L. Cundall, late Clerk of Superior Court, for amount erroneously drawn for Jury Commissioners, said Commissioners having been paid by Samuel H. Seward, Clerk.

MISCELLANEOUS RECEIPTS.

From Whom Received — Remark.	Amount.
C. A. Lindsley, Secretary State Board of Health, in settlement of account to June 30, 1886,	\$.60
Commissioners of Shell-Fisheries, in settlement of account to June 30, 1886,	520.02
Stephen R. Smith, Adjutant-General, in settlement of account to June 30, 1886,	2.31
Henry A. Cooley, for crockery damaged and coal used in restaurant,	18.10
Henry A. Cooley, for carpet sold,	15.00
William Dibble, for lawn mowers sold,	10.00
William Dibble, for one stone, taken from Trinity College building, sold,	5.00
William Dibble, for waste paper sold,	24.55
William Dibble, for old carpet sold,	18.00
William Dibble, for old hose sold,	2.00
William Dibble, for labor of men, \$5, for wood and tree sold, \$2,	7.00
H. Sidney Hayden, Chairman of Building Committee, returned from for building new South Hospital,	2,000.00
Luzerne I. Munson, Comptroller, amount returned by town of Waterbury for error in enumeration of school children,	38.65
H. C. Dwight, Paymaster-General, returned in settlement of his account,	514.20
Thomas Clark, Comptroller, for statutes sold,	31.50
William Hamersley, for amount of Comptroller's Order No. 340, for services as one of the committee of the General Assembly of 1886, declined and returned,	300.00
William G. Anthony, administrator of the estate of Eunice Staples, late of Hampton, deceased, the amount of said estate for which no heirs can be found,	280.27
Casper Lower and Samuel H. Morrell, for one year's rent of Vincent Island,	5.00
	<hr/>
	\$3,792.20

TAX ON STOCK ERRONEOUSLY RETURNED TO TOWN ASSESSORS.

First National Bank of Hartford, to Assessors of Middlebury, six shares at \$87.50. Tax \$5.25.

INTEREST STATEMENT.

Received of Banks and Trust Co's for interest on deposits,	\$21,388.11
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PAYMENTS.

Interest on Principal of Agricultural College Fund in the Treasury,.....	\$111.92
Interest on Town Deposit Fund in the Treasury,.....	544.66
Interest on Principal of the School Fund in the Treasury,	542.39
Interest on Revenue of the School Fund in the Treasury,	2,218.23
Credit balance,.....	\$17,970.91

Received from Commissioners of Pharmacy during the fiscal year ending June 30, 1887,.....	\$1,218.00
Received from the Commissioners of Shell-Fisheries during the fiscal year ending June 30, 1887,.....	\$8,401.61
Received from CHARLES A. RUSSELL, Secretary, from July 1, 1886, to January, 1887, on account of fees of the Secretary's office,	\$466.50
Received of L. M. HUBBARD, Secretary, from January, 1887, to June 30, 1887, on account of fees of the Secretary's office,.....	\$925.50
Received from ARTHUR S. OSBORNE, Executive Secretary, on account of fees for Notaries Commissions,.....	\$67.50
Received from GEO. P. McLEAN, Executive Secretary, on account of fees for Notaries Commissions,.....	\$398.50
Received from O. R. FYLER, Insurance Commissioner, during the fiscal year ending June 30, 1887,.....	\$19,182.63
Received from State Banks, Savings Banks, and Trust Companies the amount of the Comptroller's assessment, for the salaries and expenses of the Bank Commissioners,.....	\$5,075.00
Received from Railroad Companies the amount of the Comptroller's assessment for the salaries and office expenses of the Board of Railroad Commissioners,.....	\$11,139.05

STATEMENT OF ACCOUNTS.

STATEMENT OF ACCOUNTS.

DR.	CIVIL LIST.	
To Payments:		
Civil List Orders,.....	\$1,205,479.49	
Registered Orders,.....	355,453.45	
State Bonds redeemed,.....	40,600.00	
Interest on State Bonds,.....	156,821.00	
Interest on Principal of Agricultural College Fund in the Treasury,.....	111.92	
Interest on Town Deposit Fund in the Treasury,.....	544.66	
Interest on Principal of School Fund in the Treasury,.....	542.39	
Interest on Revenue of School Fund in the Treasury,.....	2,218.23	
	<u>\$1,761,771.14</u>	

To balance of cash to July 1, 1887,.....	490,570.60
	<u>\$2,252,341.74</u>

DR.	SCHOOL FUND.	
To Revenue Loan outstanding July 1, 1886,.....	\$1,293.20	
To paid Commissioner's Orders from the Principal,.....	136,700.00	
To paid Commissioner's Orders from the Revenue,.....	10,851.74	
To paid Comptroller's Orders from the Revenue,.....	114,945.00	
To balance of Principal to July 1, 1887,.....	9,075.04	
To balance of Interest to July 1, 1887,.....	48,113.37	
	<u>\$320,978.35</u>	

STATEMENT OF ACCOUNTS.

CIVIL LIST.		CR.
By Receipts:		
Balance in the Treasury, July 1, 1886,.....	\$230,442.48	
Commissioners of Pharmacy,.....	1,218.00	
Commissioners of Shell-Fisheries,.....	8,401.61	
Bank Commissioners, Salaries, etc.,.....	5,075.00	
Board of Railroad Commissioners, Salaries, etc.,.....	11,139.05	
Fees from Executive Secretary,....	466.00	
Fees from State Secretary,.....	1,392.00	
Miscellaneous Receipts,.....	3,792.20	
Receipts from Insurance Commissioner,.....	19,182.63	
Avails of Courts and Bonds,.....	22,544.19	
State Tax from Towns,.....	698,355.22	
Military Commutation Tax,.....	103,045.00	
Tax on Telegraph and Telephone Companies,.....	7,114.50	
Tax on Express Companies,.....	9,094.45	
Tax on Mutual Insurance Companies,.....	230,074.87	
Tax on Agents of Insurance Companies of other States,....	23,929.32	
Tax on Mutual Life Insurance Companies of Massachusetts on the value of policies issued by them and held by resi- dents of Connecticut,.....	1,144.54	
Tax on Premiums of Insurance Companies of other States,	899.59	
Tax on Savings Banks,.....	211,393.72	
Tax on Railroads,.....	567,571.99	
Tax on Non-Resident Stock,.....	74,672.02	
Tax on Stock misreported to Town Assessors,.....	5.25	
Interest on Deposits,.....	21,388.11	
	<u>\$2,252,341.74</u>	
1887, July 1. By balance,.....	\$490,570.60	

SCHOOL FUND.		CR.
By balance of Principal, July 1, 1886,.....	\$17,405.04	
By Collection of Principal,.....	128,370.00	
By balance of Interest, July 1, 1886,.....	49,864.02	
By Collection of Interest,.....	125,339.29	
	<u>\$320,978.35</u>	
1887, July 1. By balance of Principal,.....	9,075.04	
1887, July 1. By balance of Interest,.....	48,113.37	

STATEMENT OF ACCOUNTS.

DR.	PRINCIPAL OF THE TOWN DEPOSIT FUND.	
1887, Jan. 19.	To paid Town of Newington,.....	\$1,496.24
1887, June 30.	To balance forward,.....	17,328.48
		<hr/> \$18,824.72

DR.	INTEREST OF THE TOWN DEPOSIT FUND.	
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1887, June 30.	To Interest paid to Towns,.....	\$1,208.15
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DR.	AGRICULTURAL COLLEGE FUND—PRINCIPAL.	
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1887, June 30.	To amount of orders paid,.....	\$11,075.00
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DR.	AGRICULTURAL COLLEGE FUND—INTEREST.	
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1887, June 30.	To amount of Interest paid,.....	\$5,735.75
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DR.	UNCLAIMED DEPOSITS FROM COUNTY TREASURERS.	
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DR.	DEPOSIT BY RECEIVERS OF LITCHFIELD BANK.	
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DR.	DEPOSIT BY RECEIVER OF WOODBURY BANK.	
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DR.	STATE LIBRARIAN.	
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DR.	DORSEY STATE PRISON FUND.	
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DR.	RIDGEFIELD & NEW YORK RAILROAD COMPANY.	
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DR.	DEPOSITS ON ACCOUNT OF STATE BONDS TO BE ISSUED.	
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STATEMENT OF ACCOUNTS.

PRINCIPAL OF THE TOWN DEPOSIT FUND.		CR.
1886, July 1.	By balance,.....	\$18,824.72
1887, July 1.	By balance,.....	\$17,328.48
INTEREST OF THE TOWN DEPOSIT FUND.		CR.
1886, July 1.	By balance,.....	\$663.49
1887, June 30.	By Interest received,.....	544.66
		\$1,208.15
AGRICULTURAL COLLEGE FUND—PRINCIPAL.		CR.
1886, July 1.	By balance,.....	\$6,075.00
1887, Feb. 9.	By amount received,.....	5,000.00
		\$11,075.00
AGRICULTURAL COLLEGE FUND—INTEREST.		CR.
1887, June 30.	By amount of Interest received,.....	\$5,735.75
UNCLAIMED DEPOSITS FROM COUNTY TREASURERS.		CR.
1887, July 1.	By balance,.....	\$78.50
DEPOSIT BY RECEIVERS OF LITCHFIELD BANK.		CR.
1887, July 1.	By balance,.....	\$145.30
DEPOSIT BY RECEIVER OF WOODBURY BANK.		CR.
1887, July 1.	By balance,.....	\$118.60
STATE LIBRARIAN.		CR.
1887, July 1.	By balance,.....	\$1,798.62
DORSEY STATE PRISON FUND.		CR.
1887, July 1.	By balance,.....	\$1,666.66
RIDGEFIELD & NEW YORK RAILROAD COMPANY.		CR.
1887, July 1.	By balance—amount deposited to spend for examination of location of road by Railroad Commissioners,.....	\$99.00
DEPOSITS ON ACCOUNT OF STATE BONDS TO BE ISSUED.		CR.
Deposit by the Ætna Life Insurance Company,.....		\$25,000.00
Deposit by The Williamsburgh Savings Bank,.....		25,000.00
		\$50,000.00

STATEMENT OF ACCOUNTS.

DR. BALANCES BELONGING TO THE SEVERAL FUNDS.

Cash, \$618,994.17

\$618,994.17

GENERAL BALANCE.

DR. ALEXANDER WARNER, TREASURER,

To Receipts, including balances July 1, 1886:

Civil List,	\$2,252,341.74
Principal of the School Fund,	145,775.04
Interest of the School Fund,	173,910.11
Principal of the Town Deposit Fund,	18,824.72
Interest of the Town Deposit Fund,	1,208.15
Principal of Agricultural College Fund,	11,075.00
Interest of Agricultural College Fund,	5,735.75
State Librarian,	1,798.62
Dorsey State Prison Fund,	1,666.66
Unclaimed Deposits from County Treasurers,	78.50
Deposits from Receivers of Litchfield Bank,	145.30
Deposits from Receiver of Woodbury Bank,	118.60
Deposit by New York & Ridgetfield Railroad Company,	99.00
Deposits on account of State Bonds to be issued,	50,000.00

\$2,662,777.19

STATEMENT OF ACCOUNTS.

BALANCES BELONGING TO THE SEVERAL FUNDS.		Cr.
Civil List,.....	\$490,570.60	
Principal of the School Fund,.....	9,075.04	
Interest of the School Fund,....	48,113.37	
Ridgefield & New York Railroad Company, Deposit of,.....	99.00	
Principal of the Town Deposit Fund,.....	17,328.48	
Dorsey State Prison Fund,.....	1,666.66	
Unclaimed Deposits from County Treasurers,.....	78.50	
State Librarian,	1,798.62	
Deposit by Receivers of Litchfield Bank,.....	145.30	
Deposit by Receiver of Woodbury Bank,.....	118.60	
Deposits on account of State Bonds to be issued,.....	50,000.00	
		<u>\$618,994.17</u>

GENERAL BALANCE.

IN ACCOUNT WITH THE STATE OF CONNECTICUT. Cr.

By Payments:	
Civil List,	\$1,761,771.14
Principal of the School Fund,.....	136,700.00
Interest of the School Fund,	125,796.74
Principal of the Town Deposit Fund,.....	1,496.24
Interest of the Town Deposit Fund,.....	1,208.15
Principal of Agricultural College Fund,.....	11,075.00
Interest of Agricultural College Fund,.....	5,735.75
	<u>\$2,043,783.02</u>

Balance of Cash July 1, 1887,.....	618,994.17
	<u>\$2,662,777.19</u>

AUDITOR'S CERTIFICATE.

STATE OF CONNECTICUT, TREASURER'S OFFICE, }
HARTFORD, AUGUST 6, 1887. }

We, the Auditors of Public Accounts, do hereby certify that we have examined the accounts of the State Treasurer for the fiscal year ending with June 30, 1887, and have compared said accounts with the several vouchers and find them correct, and that the cash in the Treasury at the close of business on the thirtieth day of June, 1887, amounted to six hundred and eighteen thousand nine hundred and ninety-four dollars and seventeen cents (\$618,994.17).

FRANK L. RODGERS,
JOHN E. SCANLAN,
Auditors of Public Accounts.
THOMAS CLARK, *Comptroller.*

SCHOOL FUND OFFICE, }
HARTFORD, August 23, 1887. }

I hereby certify that the foregoing Report is correct so far as it relates to the School Fund.

JEREMIAH OLNEY,
Commissioner.





ANNUAL REPORT

OF THE

Comptroller of Public Accounts

OF THE

STATE OF CONNECTICUT,

IN RELATION TO THE

CRIMINAL BUSINESS OF THE COURTS

FOR THE

Year Ending July 1, 1887,

AS SHOWN BY THE RETURNS OF THE STATE ATTORNEYS.

PRINTED BY ORDER OF THE LEGISLATURE.

HARTFORD, CONN.:

PRESS OF WILEY, WATERMAN & EATON, 354 AND 356 ASYLUM ST.
1887.

State of Connecticut.

STATE OF CONNECTICUT,
COMPTROLLER'S OFFICE,

HARTFORD, October 13, 1887.

To His Excellency the Governor:

Complying with the statute, I herewith submit the annual reports of the State Attorneys, concerning the criminal business of the courts for the year ending July 1, 1887.

The whole number of prosecutions for different crimes was ten hundred and thirty-seven (1037), a decrease of three hundred and ninety-four (394) as compared with the preceding year. Total number of cases disposed of, seventeen hundred and twelve (1,712), a decrease of two hundred and twenty-eight (228). Total number of convictions, ninety-eight (98), a decrease of one (1).

The amount of forfeited bonds reported is seventeen thousand seven hundred and thirty-five dollars (\$17,735). The amount for the preceding year was eighteen thousand one hundred and seventy-five dollars.

Respectfully submitted,

THOMAS CLARK,
Comptroller.

REPORTS OF THE STATE ATTORNEYS.

STATE OF CONNECTICUT, OFFICE OF STATE'S ATTORNEY FOR HARTFORD COUNTY.

To the Comptroller:

The business of this office during the year ending July 1st, 1887, has been as follows:

Total number of cases disposed of during the year,	.	.	145
Of these cases, 123 were in court for 1 term.			
20 were in court for 2 terms.			
2 were in court for 3 terms.			
Total number of days the criminal court was in session,	.	.	40
Total number of trials during the year,	.	.	20

As to persons tried, the results were as follows:

Number of persons convicted,	.	.	.	15
Number of persons acquitted,	.	.	.	4
Number of persons as to whom the jury disagreed,	.	.	.	2
				—
Total number of persons tried,	.	.	.	21
Total number of persons who pleaded guilty,	.	.	.	81
Total number of bonds forfeited,	.	.	.	4
Total amount of forfeited bonds,	.	.	.	\$1,100.00
Total number of <i>nolles</i> absolute,	.	.	.	40
Total number of <i>nolles</i> on terms,	.	.	.	6
Number of original informations,	.	.	.	79
Number of appealed cases,	.	.	.	66

The appealed cases were disposed of as follows:

By verdict of jury,	.	.	.	.	14
By plea of guilty,	.	.	.	.	21
By <i>nolle</i> absolute,	.	.	.	.	22
By <i>nolle</i> on terms,	.	.	.	.	7
By forfeiture of bond,	.	.	.	.	2

The whole number of prosecutions for different crimes was as follows:

Prosecutions for murder,	.	.	.	.	.	4
“ “ rape,	.	.	.	.	.	1
“ “ arson,	.	.	.	.	.	5
“ “ burglaries,	.	.	.	.	.	15
“ “ embezzlement,	.	.	.	.	.	4
“ “ horse theft,	.	.	.	.	.	5
“ “ theft from person,	.	.	.	.	.	5
“ “ other thefts,	.	.	.	.	.	21
“ “ mayhem,	.	.	.	.	.	1
“ “ attempt to commit state-prison offences,	.	.	.	.	.	2
“ “ adultery,	.	.	.	.	.	1
“ “ perjury,	.	.	.	.	.	1
“ “ violations tramp law,	.	.	.	.	.	4
“ “ assaults,	.	.	.	.	.	42
“ “ common-law misdemeanors,	.	.	.	.	.	5
“ “ violations of license law,	.	.	.	.	.	17
“ “ statutory misdemeanors,	.	.	.	.	.	14
						—
						145

Number of second convictions for same crime,	.	.	12
Number of third convictions for same crime,	.	.	6

Of the 150 persons prosecuted during the year, there were punished or discharged upon terms:

On verdict of guilty,	.	.	.	.	.	15
On plea of guilty,	.	.	.	.	.	81
						— 96
By forfeiture of bond,	.	.	.	.	.	4
By payment or part payment of fine and costs,	.	.	.	.	.	6
						—
						106

Discharged without terms:

By verdict of jury,	.	.	.	.	.	4
By <i>nolles</i> absolute,	.	.	.	.	.	40
						— 44

The costs taxed in each class of cases were as follows:

Upon bound-over cases:

Where there was a trial,	.	.	.	.	.	\$723.77
Where plea of guilty was entered,	.	.	.	.	.	3,140.52
Where <i>nolle</i> was entered,	.	.	.	.	.	782.93
						—
						\$4,647.22

Upon appealed cases:

Where there was a trial,	\$691.32
Where plea of guilty was entered,	827.36
Where <i>nolle</i> was entered,	836.70
	<hr/>
	\$2,355.38

Total amount of costs taxed in 145 cases,	\$7,002.60
Average costs taxed in each case disposed of,	48.30
Average costs taxed in each bound-over case,	58.82
Average costs taxed in each appealed case,	35.64

WILLIAM HAMERSLEY,

State's Attorney for Hartford County.

NEW HAVEN COUNTY.

To the Comptroller of Public Accounts:

SIR:—Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year,	530
Number of terms they were in court: 74 for 1 term; 52 for 2 terms; 47 for 3 terms; 13 for 4 terms; 19 for 5 terms; 2 for 6 terms; 4 for 7 terms; 11 for 8 terms; 2 for 10 terms; 1 for 11 terms; 1 for 12 terms; 2 for 19 terms; 1 for 21 terms; 1 for 24 terms; total 530.	
Total number of trials, and their results:	
Number of convictions,	27
Number of acquittals,	3
Number of cases in which there was disagreement of jury,	2
Number of pleas of guilty,	39
Bonds forfeited:	
Number,	49
Amount,	\$7,310.00
Number of <i>nolles</i> absolute,	211
Number of <i>nolles</i> upon terms,	134
Number of original informations,	118
Appealed cases and their disposition by verdict:	
Number by verdict,	13
Number of pleas of guilty,	1

Number of <i>nolles</i> absolute,	172
Number disposed of upon payment or part payment of fine below and cost,	186
Whole number of prosecutions for different crimes,	557
Number of second convictions for the same crime,	none.
Number of third convictions for the same crime,	2

T. E. DOOLITTLE,

State's Attorney for the County of New Haven.

To the Comptroller of Public Accounts:

SIR: Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year,	255
Number of terms they were in court: 152 for 1 term; 20 for 2 terms; 5 for 3 terms; 27 for 4 terms; 18 for 5 terms; 21 for 6 terms; 2 for 7 terms; 1 for 8 terms; 7 for 9 terms; 2 for 10 terms; total, 255.	
Total number of trials and their results:	
Number of convictions,	4
Number of acquittals,	6
Number of cases in which there was disagreement of jury,	1
Number of pleas of guilty,	19
Bonds forfeited:	
Number,	99
Amount,	\$1,675.00
Number of <i>nolles</i> absolute,	80
Number of <i>nolles</i> upon terms,	46
Number of original informations,	not given.
Appealed cases and their disposition by verdict:	
Number by verdict,	not given.
Number of pleas of guilty,	"
Number of <i>nolles</i> absolute,	"
Number disposed of upon payment or part payment of fine below and cost,	"
Whole number of prosecutions for different crimes,	"
Number of second convictions for the same crime,	"
Number of third convictions for the same crime,	"

GEO. E. TERRY,

Assistant State's Attorney for New Haven County, at Waterbury.

NEW LONDON COUNTY.

To the Comptroller of Public Accounts :

SIR:—Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year, . . . 107

Number of terms they were in court: 82 for 1 term; 16 for 2 terms; 9 for 3 terms; total, 107.

Total number of trials, and their results:

Number of convictions, 8

Number of acquittals, 4

Number of cases in which there was disagreement of jury, . . . 1

Number of pleas of guilty, 26

Bonds forfeited:

Number, 13

Amount, \$3,950.00

Number of *nolles* absolute, 39

Number of *nolles* upon terms, 19

Number of original informations, 34

Appealed cases and their disposition by verdict:

Number by verdict, 5

Number of pleas of guilty, 7

Number of *nolles* absolute, 30

Number disposed of upon payment or part payment of fine below and cost, 17

Whole number of prosecutions for different crimes, . . . not given.

Number of second convictions for the same crime, . . . none.

Number of third convictions for the same crime, . . . none.

JOHN M. THAYER,

State's Attorney for New London County.

FAIRFIELD COUNTY.

To the Comptroller of Public Accounts :

SIR:—Herewith I send you a statement of the business of this office for the year ending July 1st, 1887:

Total number of cases disposed of during the year, . . . 318

Number of terms they were in court: 226 for 1 term; 44 for 2 terms;

18 for 3 terms; 5 for 4 terms; 7 for 5 terms; 3 for 6 terms; 7 for 7 terms; 7 for 9 terms; 1 for 15 terms; total, 318.

Total number of trials, and their results:

Number of convictions,	19
Number of acquittals,	8
Number of cases in which there was disagreement of jury,	1

Number of pleas of guilty,	97
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Bonds forfeited:

Number,	18
Amount,	\$2,400.00

Number of <i>nolles</i> absolute,	114
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Number of <i>nolles</i> upon terms,	61
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Number of original informations,	7
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Appealed cases and their disposition by verdict:

Number by verdict,	6
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Number of pleas of guilty,	22
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Number of <i>nolles</i> absolute,	65
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Number disposed of upon payment or part payment of fine below and cost,	49
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Whole number of prosecutions for different crimes,	not given.
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Number of second convictions for the same crime,	"
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Number of third convictions for the same crime,	"
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SAMUEL FESSENDEN,

State's Attorney for Fairfield County.

WINDHAM COUNTY.

To the Comptroller of Public Accounts:

SIR:—Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year,	99
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Number of terms they were in court: 1, 2 and 3 terms.	
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Total number of trials, and their results:

Number of convictions,	10
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Number of acquittals,	5
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Number of cases in which there was disagreement of jury,	none.
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Number of pleas of guilty,	12
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Bonds forfeited:

Number,	8
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Amount,	\$800.00
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Number of <i>nolles</i> absolute,	9
Number of <i>nolles</i> upon terms,	1
Number of original informations,	9
Appealed cases and their disposition by verdict:	
Number by verdict,	13
Number of pleas of guilty,	21
Number of <i>nolles</i> absolute,	6
Number disposed of upon payment or part payment of fine below and cost,	16
Whole number of prosecutions for different crimes,	99
Number of second convictions for the same crime,	none.
Number of third convictions for the same crime,	none.

JOHN J. PENROSE,

State's Attorney for Windham County.

LITCHFIELD COUNTY.

To the Comptroller of Public Accounts:

SIR: Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year,	166
Number of terms they were in court: 131 for 1 term; 25 for 2 terms; 6 for 3 terms; 2 for 4 terms; 1 for 8 terms; 1 for 18 terms; total, 166.	
Total Number of trials and their results:	
Number of convictions,	10
Number of acquittals (1 on sole ground of insanity),	1
Number of cases in which there was disagreement of jury,	none.
Number of pleas of guilty,	22
Bonds forfeited:	
Number,	1
Amount,	\$300.00
Number of <i>nolles</i> absolute,	71
Number of <i>nolles</i> upon terms,	60
Number of original informations,	49
Appealed cases and their disposition by verdict:	
Number by verdict,	3
Number of pleas of guilty,	3
Number of <i>nolles</i> absolute,	48
Number disposed of upon payment or part payment of fine below and cost,	8

Whole number of prosecutions for different crimes, . . .	150
Number of second convictions for the same crime, (violation liquor law, 1; assault, 1; burglary, 1;) . . .	3
Number of third convictions for the same crime, . . .	not given.

WOODBURY, August 5, 1887.

JAS. HUNTINGTON,
State's Attorney for Litchfield County.

MIDDLESEX COUNTY.

To the Comptroller of Public Accounts:

SIR:—Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year, . . .	50
Number of terms they were in court: 36 for 1 term; 10 for 2 terms; 4 for 3 terms; total, 50.	
Total number of trials, and their results:	
Number of convictions,	2
Number of acquittals (two of them solely on account of insanity, and sent to hospital for insane,—one 20 years, one 15 years),	4
Number of cases in which there was disagreement of jury, . . .	none.
Number of pleas of guilty,	22
Bonds forfeited:	
Number,	none.
Amount,	none.
Number of <i>nolles</i> absolute,	16
Number of <i>nolles</i> upon terms,	9
Number of original informations,	30
Appealed cases and their disposition by verdict:	
Number by verdict,	none.
Number of pleas of guilty,	4
Number of <i>nolles</i> absolute,	5
Number disposed of upon payment or part payment of fine below and cost,	9
Whole number of prosecutions for different crimes, . . .	44
Number of second convictions for the same crime, . . .	1
Number of third convictions for the same crime, . . .	none.

WILLIAM T. ELMER,
State's Attorney for Middlesex County.

TOLLAND COUNTY.

To the Comptroller of Public Accounts :

SIR:—Herewith I send you a statement of the business of this office for the year ending July 1, 1887:

Total number of cases disposed of during the year, . . . 42
 Number of terms they were in court: 37 for 1 term; 5 for two terms;
 total, 42.

Total number of trials and their results:

Number of convictions, 3

Number of acquittals, 1

Number of cases in which there was disagreement of jury, none.

Number of pleas of guilty, 7

Bonds forfeited:

Number, 2

Amount, \$200.00

Number of *nolles* absolute, 6

Number of *nolles* upon terms, 23

Number of original informations, none.

Appealed cases and their disposition by verdict:

Number by verdict, 1

Number of pleas of guilty, 1

Number of *nolles* absolute, 2

Number disposed of upon payment or part payment of
 fine below and cost, 23

Whole number of prosecutions for different crimes:

2 perjury.

1 arson.

1 horse stealing.

22 violation of liquor laws.

6 assault and battery.

3 burglary.

4 theft.

1 violation of school laws.

1 attempt to rape.

1 injury to property.

42

Number of second convictions for the same crime, . . . not given.

Number of third convictions for the same crime, . . . not given.

BENEZET H. BILL,

State's Attorney for Tolland County.

SUMMARY.

The following is a summary of the statements of the attorneys for the several counties of the State, as shown by the foregoing returns:

Total number of cases disposed of during the year,	1,712
Number of terms they were in court: 1,196 for 1 term; 237 for 2 terms; 110 for 3 terms; 47 for 4 terms; 44 for 5 terms; 26 for 6 terms; 13 for 7 terms; 13 for 8 terms; 14 for 9 terms; 4 for 10 terms; 1 for 11 terms; 1 for 12 terms; 1 for 15 terms; 1 for 18 terms; 2 for 19 terms; 1 for 21 terms; 1 for 24 terms; total, 1,712.	
Total number of trials, and their results:	
Number of convictions,	98
Number of acquittals,	36
Number of cases in which there was disagreement of jury,	7
Number of pleas of guilty,	325
Bonds forfeited:	
Number,	194
Amount,	\$17,735.00
Number of <i>nolles</i> absolute,	586
Number of <i>nolles</i> upon terms,	359
Number of original informations,	326
Appealed cases and their disposition by verdict:	
Number by verdict,	55
Number of pleas of guilty,	80
Number of <i>nolles</i> absolute,	350
Number disposed of upon payment or part payment of fine below and cost,	355
Whole number of prosecutions for different crimes,	1,037
Number of second convictions for the same crime,	16
Number of third convictions for the same crime,	8

State of Connecticut.

REPORT



OF THE

COMMISSIONER OF THE SCHOOL FUND

TO

THE GOVERNOR,

FOR THE FISCAL YEAR ENDING JUNE 30, 1887.


Printed by Order of the Legislature.


HARTFORD, CONN. :

PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.

1887.

State of Connecticut.

REPORT OF THE COMMISSIONER OF THE SCHOOL FUND.

*To His Excellency, PHINEAS C. LOUNSBURY, Governor of the
State of Connecticut:*

In compliance with the requirement of the Statute law of this State, I hereby report to you an abstract of the property and securities belonging to the School Fund, as certified to by the Auditors of Public Accounts, together with a statement of the condition of the same for the fiscal year ending June 30, 1887.

There is no material change in the condition of the Fund since my last report to the General Assembly, though sales have been made of some of the unproductive real estate which had long been held for more favorable results, but on which a depreciation has been realized, resulting in a loss to the principal of \$9,350.00, and a loss to the revenue in expenses and accumulated interest of \$2,587.36.

The reappraisal of the securities held for loans made by this department has been in progress for several months, as required by law, but is not fully completed, examined, and compared with the original appraisals.

The enumeration last made of children between the ages of four and sixteen, who are entitled to the benefits accruing from the revenue of the School Fund, shows a continuous increase which will necessarily affect the per-capita distribu-

tion to the several towns of the State, unless other provision is made to meet the emergency.

The amount of interest remaining due and unpaid on real estate loans, the 30th day of June, 1887, was \$7,532.93, of which amount \$3,307.63 has since been paid.

The usual tables, annexed hereto, numbered from one to six inclusive, being the Auditor's report, statements of revenue receipts and disbursements, also, of the principal of the fund received into and paid out of the Treasury; dividends on bank stocks, enumeration of children, and distribution or dividends each year since the establishment of the School Fund, is, in connection with the foregoing report respectfully submitted.

JEREMIAH OLNEY,
Commissioner.

HARTFORD, Nov. 1, 1887.

No. 1.

Abstract of the Schedule of Property and Securities belonging to and constituting the Capital of the School Fund of Connecticut on the 30th day of June, 1887, as prepared by the Commissioner of said Fund, and by us audited and examined, and each item thereof compared with documents and vouchers in the office of said Commissioner.

BONDS AND MORTGAGES.

In Connecticut, - - - - -	\$1,292,567.26
In Massachusetts, - - - - -	6,557.00
In Ohio, - - - - -	321,050.00
In Indiana, - - - - -	61,800.00

REAL ESTATE.

Face Value of Mortgages, - - - - -	\$135,957.36
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BANK STOCK.

In thirteen banks, - - - - -	\$185,847.61
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CASH.

In hands of Treasurer, - - - - -	\$9,075.04
	<hr/>
	\$2,012,854.27

We, the Auditors of Public Accounts of the State of Connecticut, do hereby certify that we have audited and examined the schedule of the property and securities comprising the Capital of the School Fund, of said State, as prepared and presented to us by Jeremiah Olney, Commissioner of said Fund, and have carefully compared the items thereof with the vouchers in the office of said Commissioner on the 30th day of June, A.D. 1887, and find the same to be correct and amounting to the sum of two million twelve thousand eight hundred fifty four dollars and twenty-seven cents (\$2,012,854.27).

FRANK L. RODGERS,	} <i>Auditors of</i> <i>Public Accounts.</i>
JOHN E. SCANLAN,	

No. 2.

*Statement of Receipts and Disbursements of the Revenue of the School Fund, from July 1, 1886,
to June 30, 1887.*

RECEIPTS.	DISBURSEMENTS.
Cash in the Treasury, June 30, 1886, Cash received for interest on Bonds, Dividends on Bank Stock, and Rents, Cash received for interest on Revenue remaining in the Treasury, Cash received for interest on Principal remaining in the Treasury,	Comptroller's orders to sundry Towns for sup- port of Public Schools, \$114,945.00 Commissioner's orders for salaries and Auditor's fees, 5,600.00 Commissioner's orders for office and Commis- sioner's expenses, 990.15 Commissioner's orders for repairs, insurance, and other expenses on real estate, 3,766.22 Commissioner's orders for legal expenses, 495.37 Cash remaining in the Treasury, 48,113.37 Outstanding Revenue Loan, 1,293.20
\$49,864.02	\$175,203.31
122,578.67	
2,218.23	
542.39	
\$175,203.31	
\$48,113.37	
Cash remaining in the Treasury, June 30, 1887, ...	

No. 3.

*Statement of Receipts and Disbursements of the Principal of the School Fund from July 1, 1886,
to June 30, 1887.*

RECEIPTS.		DISBURSEMENTS.	
Cash remaining in the Treasury, June 30, 1886,...	\$17,405.04	Commissioner's orders to sundry persons for loans,.....	\$136,700.00
Cash received from sundry persons in payment of bonds and real estate,.....	128,370.00	Cash remaining in the Treasury, June 30, 1887,...	9,075.04
	\$145,775.04		\$145,775.04
Cash remaining in the Treasury, June 30, 1887...	\$9,075.04		

No. 4.

Showing the number of shares of stock held in each bank, cost of same, and amount of dividend received for the year ending June 30, 1887.

NAME OF BANK.	Number of Shares.	Cost to the School Fund.	Dividend.
Bridgeport National,.....	200	\$10,000.00	\$1,000.00
Connecticut National,.....	64	6,400.00	512.00
City, Hartford,.....	120	12,000.00	900.00
Danbury National,.....	85	8,500.00	680.00
Farmers and Mech. National.	141	14,135.00	846.00
Fairfield County National,...	109	10,900.00	681.50
Hartford National,.....	680	68,000.00	5,440.00
Middlesex County National,.	100	10,000.00	600.00
Middletown National,.....	134	10,050.00	904.50
National, New Haven,.....	100	10,000.00	1,000.00
Norwich National,.....	100	10,000.00	400.00
Stafford National,.....	50	5,000.00	300.00
Waterbury National,.....	200	10,862.61	1,200.00
	2,083	\$185,847.61	\$14,464.00

No. 5.

STATEMENT OF THE AMOUNT OF DIVIDENDS

Paid in each year since the establishment of the School Fund, together with the enumeration of children in each year since 1824.

In the $1\frac{1}{2}$ years ending March, 1796, the Dividends were, \$60,403.78
 " " " 1800, " " " 23,651.10

\$84,054.88

<i>Year.</i>	<i>Dividend.</i>	<i>Year.</i>	<i>Dividend.</i>
1801,	\$15,073.27	1814,	\$39,223.50
1802,	15,959.75	1815,	38,878.00
1803,	47,505.02	1816,	40,595.72
1804,	49,312.74	1817,	40,186.32
1805,	45,157.39	1818,	49,404.98
1806,	47,941.87	1819,	58,020.62
1807,	39,100.77	1820,	58,439.36
1808,	41,022.17	1821,	67,429.60
1809,	26,540.68	1822,	68,013.60
1810,	45,088.90	1823,	72,203.25
1811,	45,531.59	1824,	72,190.50
1812,	32,309.80		
1813,	26,075.10		

\$1,081,204.50

<i>Year.</i>	<i>Enumeration.</i>	<i>Dividend.</i>	<i>Year.</i>	<i>Enumeration.</i>	<i>Dividend.</i>
1825,	84,976	\$72,418.30	1858,	101,486	\$143,047.35
1826,	84,801	72,391.95	1859,	103,103	134,033.90
1827,	84,876	72,449.75	1860,	105,464	131,825.00
1828,	85,174	72,553.45	1861,	108,389	124,647.35
1829,	84,899	72,573.00	1862,	109,042	130,850.40
1830,	85,006	76,993.80	1863,	110,491	132,569.20
1831,	85,090	77,333.40	1864,	112,098	134,517.60
1832,	85,095	77,067.00	1865,	114,825	132,018.75
1833,	85,172	80,913.80	1866,	118,780	130,658.00
1834,	83,644	80,323.20	1867,	120,884	132,702.40
1835,	83,779	83,799.00	1868,	123,650	136,015.00
1836,	83,566	87,773.80	1869,	124,082	124,082.00
1837,	83,359	95,862.85	1870,	124,348	124,348.00
1838,	84,122	97,746.40	1871,	128,468	128,468.00
1839,	83,925	104,906.25	1872,	131,748	131,748.00
1840,	82,676	103,345.00	1873,	132,924	132,924.00
1841,	84,148	113,599.80	1874,	133,530	133,530.00
1842,	83,618	117,493.60	1875,	134,976	148,473.60
1843,	84,640	118,496.00	1876,	135,219	135,219.00
1844,	84,084	117,717.60	1877,	137,261	137,261.00
1845,	84,093	117,730.20	1878,	138,475	138,448.00
1846,	85,275	119,385.00	1879,	138,428	124,585.00
1847,	86,697	125,710.66	1880,	140,235	112,188.00
1848,	86,948	126,126.80	1881,	143,731	100,611.70
1849,	88,811	133,336.50	1882,	146,202	87,721.20
1850,	90,700	136,050.00	1883,	149,462	112,096.50
1851,	92,220	129,108.00	1884,	150,601	112,950.75
1852,	94,852	132,792.80	1885,	151,069	120,855.20
1853,	96,382	132,990.75	1886,	152,166	114,124.50
1854,	98,980	141,267.21	1887,	153,260	114,945.00
1855,	100,294	130,054.60			
1856,	100,820	129,243.94			
1857,	100,545	143,193.75			

\$7,292,297.76

Average dividend per year paid by the School Fund since its establishment, \$80,135.12-84.

No. 6.

Schedule of the number of Children between four and sixteen years of age in each Town, according to the enumeration in the month of January, 1887, and the Dividend from the School Fund made to each Town during the year ending June 30, 1887, as apportioned by the Comptroller, with the increase and decrease of such children in each Town as compared with the previous year.

HARTFORD COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
Hartford,.....	10	9,991	\$7,493.25	82	
Avon,.....	7	257	192.75		12
Berlin,.....	9	585	438.75	35	
Bloomfield,.....	9	261	195.75		8
Bristol,.....	12	1,286	964.50	12	
Burlington,.....	9	268	201.00		28
Canton,.....	8	519	389.25	6	
East Granby,.....	6	142	106.50		7
East Hartford,.....	10	890	667.50	12	
East Windsor,.....	11	773	579.75	11	
Enfield,.....	13	1,766	1,324.50	91	
Farmington,.....	7	798	598.50	17	
Glastonbury,.....	18	726	544.50	19	
Granby,.....	10	268	201.00		2
Hartland,.....	9	129	96.75		1
Manchester,.....	9	1,774	1,330.50	89	
Marlborough,.....	4	71	53.25	8	
New Britain,.....	1	3,882	2,911.50		12
Newington,.....	4	257	192.75		3
Plainville,.....	1	410	307.50		13
Rocky Hill,.....	4	231	173.25		8
Simsbury,.....	12	405	303.75		68
Southington,.....	11	1,365	1,023.75	29	
South Windsor,.....	10	419	336.75		11
Suffield,.....	11	678	508.50	15	
West Hartford,.....	8	356	267.00		26
Wethersfield,.....	6	304	228.00		6
Windsor,.....	10	586	439.50		40
Windsor Locks,.....	1	705	528.75	27	
Totals,	240	30,132	\$22,599.00	453	245

NEW HAVEN COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
New Haven, City Dis.,	1	17,259	\$12,944.25	326	
New Haven, Westville	1	372	279.00	8	
New Haven, South, ..	1	60	45.00		4
Beacon Falls,	3	177	132.75	25	
Bethany,	5	116	87.00		19
Branford,	8	714	535.50		71
Cheshire,	12	395	296.25		57
Derby,	7	3,676	2,757.00		35
East Haven,	2	114	85.50		7
Guilford,	10	566	424.50		
Hamden,	13	771	578.25		8
Madison,	12	268	201.00		16
Meriden,	12	5,263	3,947.25	104	
Middlebury,	6	118	88.50		14
Milford,	1	690	517.50	13	
Naugatuck,	6	1,113	834.75		
North Branford,	7	131	98.25		2
North Haven,	8	335	251.25		18
Orange,	8	840	630.00		67
Oxford,	13	227	170.25		13
Prospect,	1	95	71.25	8	
Seymour,	1	762	571.50	13	
Southbury,	10	248	186.00		14
Wallingford,	9	1,210	907.50	39	
Waterbury,	9	590	442.50		19
Waterbury Central, ..	1	5,830	4,372.50	239	
Wolcott,	1	121	90.75	17	
Woodbridge,	6	173	129.75		17
Totals,	175	42,234	\$31,675.50	792	381

NEW LONDON COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
New London,.....	1	2,326	\$1,744.50	111	
Norwich Central,...	1	1,499	1,124.25		6
Norwich Town Street,	1	288	216.00		18
Norwich, W. Chelsea,	1	960	720.00	7	
Norwich Town,.....	9	2,515	1,886.25		10
Bozrah,	7	231	173.25	37	
Colchester,.....	12	613	459.75		15
East Lyme,.....	9	400	300.00		1
Franklin,.....	7	133	99.75	4	
Griswold,.....	12	602	451.50		6
Groton,.....	11	1,072	804.00	12	
Lebanon,.....	16	355	266.25		13
Ledyard,.....	14	274	205.50	36	
Lisbon,.....	6	85	63.75		11
Lyme,.....	7	199	149.25		4
Montville,.....	12	576	432.00		8
North Stonington,...	15	390	292.50	3	
Old Lyme,.....	8	271	203.25		10
Preston,.....	12	665	498.75		
Salem,	7	102	76.50		22
Sprague,.....	5	1,002	751.50	85	
Stonington,	16	1,635	1,226.25	38	
Voluntown,.....	8	302	226.50		2
Waterford,	11	607	455.25		9
Totals,	208	17,102	\$12,826.50	333	135

FAIRFIELD COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
Bridgeport,	1	9,045	\$6,783.75	157	
Bethel,	6	671	503.25	11	
Brookfield,	8	247	185.25	11	
Darien,	4	361	270.75		23
Danbury,	15	3,740	2,805.00	243	
Easton,	8	155	116.25		3
Fairfield,	14	762	571.50		44
Greenwich,	20	1,886	1,414.50	3	
Huntington,	12	830	622.50	18	
Monroe,	7	202	151.50		5
New Canaan,	11	535	401.25		25
New Fairfield,	7	138	103.50	2	
Newtown,	21	840	630.00		41
Norwalk,	11	3,373	2,529.75	7	
Reading,	10	224	168.00		8
Ridgefield,	13	392	294.00		46
Sherman,	6	141	105.75	3	
Stamford,	1	3,137	2,352.75	165	
Stratford,	5	1,248	936.00	50	
Trumbull,	6	247	185.25		10
Weston,	6	154	115.50		8
Westport,	10	798	598.50		24
Wilton,	10	338	253.50		27
Totals,	212	29,464	\$22,098.00	670	264

WINDHAM COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
Brooklyn,.....	9	623	\$476.25	12	
Ashford,	10	158	118.50		18
Canterbury,.....	11	209	156.75		6
Chaplin,	4	115	86.25	4	
Eastford,	8	122	91.50		22
Hampton,	7	164	123.00	3	
Killingly,	15	1,578	1,183.50	186	
Plainfield,	11	979	734.25		73
Pomfret,	8	287	215.25	3	
Putnam,	6	1,610	1,207.50	38	
Scotland,	5	98	73.50	1	
Sterling,	9	197	147.75		12
Thompson,	13	1,415	1,061.25	36	
Windham,	11	1,914	1,435.50		40
Woodstock,	16	520	390.00		22
Totals,	143	9,989	\$7,491.75	283	193

LITCHFIELD COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
Litchfield,	1	705	\$528.75		39
Barkhamsted,	11	287	215.25	22	
Bethlehem,	7	107	80.25	5	
Bridgewater,	5	149	111.75	15	
Canaan,	9	205	153.75		2
Colebrook,	10	270	202.50		3
Cornwall,	16	344	258.00		7
Goshen,	11	230	172.50	4	
Harwinton,	12	230	172.50		6
Kent,	13	341	255.75		8
Morris,	6	106	79.50		6
New Hartford,	10	721	540.75		19
New Milford,	18	808	606.00		15
North Canaan,	5	331	248.25		26
Norfolk,	10	364	273.00	4	
Plymouth,	8	481	360.75		7
Roxbury,	7	182	136.50		9
Salisbury,	13	868	651.00		1
Sharon,	17	481	360.75		16
Thomaston,	1	822	616.50	36	
Torrington,	1	1,081	810.75	45	
Warren,	7	108	81.00		10
Washington,	12	298	223.50		9
Watertown,	9	417	312.75		28
Winchester,	8	1,098	823.50		77
Woodbury,	14	444	333.00		10
Totals,	241	11,478	\$8,608.50	131	298

MIDDLESEX COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
Middletown City,....	1	1,481	\$1,110.75	13	
Middletown,	18	1,158	868.50		42
Haddam,	13	481	360.75		6
Chatham,	11	465	348.75		41
Chester,	4	257	192.75	1	
Clinton,	1	248	186.00		26
Cromwell,	5	378	283.50	3	
Durham,	6	145	108.75		12
East Haddam,	17	538	403.50		19
Essex,	1	326	244.50	3	
Killingworth,	8	102	76.50		4
Middlefield,	4	202	151.50	5	
Old Saybrook,	4	307	230.25	4	
Portland,	6	987	740.25		39
Saybrook,	1	236	177.00		3
Westbrook,	7	145	108.75		2
Totals,	107	7,456	\$5,592.00	29	194

TOLLAND COUNTY.

TOWNS.	Number of Districts.	Number of Children.	Amount of Dividend at 75 cents per Capita.	Increase of Children.	Decrease of Children.
Tolland,	12	233	\$174.75		22
Andover,	4	71	53.25	9	
Bolton,	5	144	108.00	13	
Columbia,	8	188	141.00		1
Coventry,	10	360	270.00		27
Ellington,	9	393	294.75	92	
Hebron,	9	233	174.75	3	
Mansfield,	15	392	294.00	8	
Somers,	10	280	210.00	34	
Stafford,	16	1,007	755.25		25
Union,	6	110	82.50	2	
Vernon,	9	1,786	1,339.50	21	
Willington,	9	208	156.00	6	
Totals,	122	5,405	\$4,053.75	188	75

ANNUAL REPORT
OF THE
BOARD OF EDUCATION

OF THE
STATE OF CONNECTICUT,
SUBMITTED TO THE GOVERNOR,

January 9, 1888,

TOGETHER WITH THE

Annual Report of the Secretary of the Board.



NEW HAVEN:
TUTTLE, MOREHOUSE & TAYLOR, PRINTERS.
1888.

MEMBERS
OF THE
STATE BOARD OF EDUCATION.
1888.

Ex-officio.

HIS EXCELLENCY PHINEAS C. LOUNSBURY, Ridgefield.
HIS HONOR JAMES L. HOWARD, Hartford.

By Appointment of the General Assembly.

ANTHONY AMES,	Danielsonville,	Term expires 1888.
GEORGE M. CARRINGTON,	West Winsted,	" " 1889.
WILLIAM G. SUMNER,	New Haven,	" " 1890.
EDWARD D. ROBBINS,	Wethersfield,	" " 1891.

SECRETARY OF THE BOARD,
CHARLES D. HINE, Hartford.

Office.

ROOM 42. CAPITOL. HARTFORD.

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REPORT
OF THE
BOARD OF EDUCATION,
TO THE
GOVERNOR.

The change from annual to biennial sessions of the General Assembly has made it necessary to submit to your Excellency instead of to that body the twenty-third annual report of the State Board of Education.

The work of the Board has been pursued along its usual lines under the guidance of the Secretary with industry and energy. Educational and teachers' meetings have been frequently held in all parts of the State; examinations for the State certificate for teachers have been held in summer and winter at places convenient of access to every town; careful attention has been given to the State Normal School; the work of the agents of the Board in reference to the enforcement of the child labor law has received the necessary supervision and direction; the text-book on Physiology and Hygiene, the first attempt of the State to publish a text-book, has issued from the press and has been distributed to nearly every town;* the usual blanks have been issued and distributed, and statistics collected and arranged, all of which will more fully appear by reference to the accompanying important and interesting report of the Secretary with *its* reports, tables of statistics and other matter. In this report the Board can specially refer to only a portion of these subjects.

* The number distributed to towns will be found on pages 87, 88.

TEXT-BOOK ON PHYSIOLOGY.*

The text-book of Physiology and Hygiene with whose preparation the Board was charged in 1886, was, after numerous and somewhat troublesome delays, issued in September last. Dr. Francis Bacon, having found his professional duties too exacting to allow him to give necessary time to the preparation of the work, was succeeded in that part of it referring to questions of fact by Dr. J. K. Thacher, Professor of Physiology in Yale University. Mr. A. B. Morrill of the State Normal School had the care of the methods of arrangement. The Board need hardly say that it desired to secure Connecticut authors to prepare a book at the expense of the State for the use of the schools of the State. These gentlemen were given entire liberty to use their own judgment in the style and manner in which they should carry out the provisions of the law. It was at first intended that the book should consist of two parts, one for the teacher and the other for the scholar. This was, for the present at least, abandoned and the work was issued in a duodecimo cloth cover of fifty-three pages, with a series of charts for each school using the book. Partly because of this change, partly because of the very condensed style of the authors, and partly because the edition finally decided on, forty thousand copies, was much smaller than at one time it was thought it would be, the \$5000 appropriation of 1886 proved amply sufficient to pay all expenses connected with the preparation and publication of the book and leave a surplus of \$362, which was covered back into the Treasury.

Too short a time has elapsed since its publication for the judgment of the public upon its merit to be generally expressed. So far it has met with favor in some quarters, in others not. The balance of opinion is favorable, especially among those teachers who are the more experienced in their profession. The more it is used and known the more it gains in favor.

*The book is printed in Appendix pages 295-319.

In reference to the purpose of the book, one view regards the law as mainly requiring the teaching of "the effects of alcoholic liquors, stimulants and narcotics on the human system." If this is correct, there should only be enough physiology and hygiene in the book to furnish a peg on which to hang such teaching. Precisely this idea obtains in some quarters and finds public expression. Another view regards the law as requiring primarily the teaching of physiology and hygiene, but with the effects of alcoholic liquors, etc., more fully dwelt on than in the usual text-books for the teaching of that study. This view was entertained by the Board in the belief that it was correct and that it expressed the intention of the General Assembly, which during its deliberations on the subject struck the word "evil" from the bill, which originally provided for teaching concerning "the evil effects of stimulants and narcotics." It was the purpose of the Board to follow faithfully the law in the preparation of the book (which duty was far from the desires of the members of the Board) and to the best of its ability to set forth only the truth.

In reference to the adaptation of the book to the wants of all grades of schools, in the nature of the case it would be impracticable in "a text-book" to which the Board was restricted, to give such expanded or simplified matter as would be appropriate, with no other aid, for the most efficient teaching of pupils of every grade by law required to attend school. Nor is it more desirable in this than in other studies that teachers should appear before their classes with only such preparation as they can find between the covers of the text-book. Simple repetition of question and answer as found in the scholar's book is now less than ever acceptable teaching. The order of the General Assembly was for "a text-book to be used in teaching." A large portion of school books on all subjects have been too much encumbered with detail. It has been well said that scholars and even many teachers do not

understand how to discriminate between essentials and non-essentials in their text-books. Without going further into the subject, let it suffice here to say that in aiming to fix thoroughly in the pupil's mind short, concise statements, to exclude unnecessary detail and to stimulate thought, the Board believes that the compiler of this work has done a service to the cause of education. It is yet too early to speak confidently of results, but experiments in various schools indicate that the book can in the hands of a skillful teacher be adapted to every grade from the lowest to the highest. It cannot be expected that Physiology can be well taught by an incompetent teacher, nor that in this more than other studies can any text-book either supply the place of the living, enthusiastic teacher, or make a good teacher out of a poor one. While the Board does not claim for this book perfection, nor exemption from the possibility of improvement, it is convinced that it is a good work and believes that in the hands of good teachers it bids fair to be of essential service in teaching the children of Connecticut to care for their bodies, and so promote good health and habits.

NORMAL SCHOOL.

The Board is pleased to have to report that the Normal School at New Britain is in a prosperous condition and steadily improving in the quality of its work. The present corps of teachers is not only efficient and enthusiastic, but appears to make it a point to devise fresh and improved ways and methods of instruction from year to year. The special appropriation of \$7,000 made by the General Assembly of 1886 for improvements about the building has resulted in better facilities for heating and ventilation, which for the first time in the history of the building are entirely satisfactory. In the third or attic story have been placed a commodious workshop and an exceptionally well equipped gymnasium. In the former the

pupils are trained in the uses of carpenter's tools with these immediate results;—instruction in the names and uses of tools, construction of simple, inexpensive and useful apparatus for illustrating elementary scientific truths, and at once good exercise and a recreation. In connection with gymnastic training special attention is given to the physical health of the pupils with most satisfactory results. The building also received a new tin roof and other much needed repairs. The appropriation was not quite sufficient to pay for all that was done, but the balance was by careful management saved from the appropriation for the ordinary expenses of the school. The Board is of opinion that the increased facilities furnished the school by this appropriation will yield as generous returns as any like amount expended in any way whatsoever.

The number of pupils now in attendance is as great as the school can accommodate and successfully train. It is no longer necessary to make efforts to secure scholars. The constant demand from all parts of the State for graduates that has to be negatived because of the deficient supply, and the large increase in letters of inquiry from candidates concerning the school give evidence of an increased public appreciation of its benefits. During the past year the applications for information from those who would be pupils have increased from thirty-three to fifty *per cent.* over those of the previous year. Of the scholars in attendance the enrollment is 292, or 26 more than that of any previous year.

The demand for Normal School graduates since September last (when most of the schools begin their yearly sessions) has been from 75 to 85 in excess of the supply. Statistics show that of the 3,092 teachers in the State about 400 are new every year. At the present ratio of demand not less than 130 of these places could be filled by Normal School graduates, if they were to be had.

The institution must always remain open to the graduate of the Connecticut common school and the standard of admission must not be placed too high. It is, however, the purpose of the instructors to discourage pupils from continuing study unless they show qualities sufficiently meritorious to warrant the belief that they will succeed as teachers. To make efficient teachers for the common schools, so far as training can do it, is the purpose which the Board and the instructors at the Normal School keep constantly before them. That this purpose is appreciated is to some extent shown by the presence, in the course of every year, of not less than 2,000 visitors, no small portion of whom are teachers who come to observe the methods in use in the various model schools. The fullness of numbers now on the rolls of the school, the larger pressure to secure its benefits, with the steadily growing demand for the services of its graduates, indicate to the Board the possibility of a public call at no very distant day for a second school in some other locality, for whose work in the public schools of the Commonwealth there will be ample room.

CHILD LABOR.

The law in reference to child labor in manufactories, etc., referred to at length in the last report, has during the past year received the careful attention of the Board. The act of the last session of the General Assembly giving the Board power to assign to its agents other work than simply ejecting from manufactories, etc., children of the prohibited ages has proved to be a good measure. By its powers, when found unlawfully employed, children can be and are placed in school by the same authority that removes them from the factory.

As was true last year, the principal opposition to the law comes from parents. In various ways and for various assigned reasons, but evidently very largely from pure avarice, many

parents continue to seek every opportunity to place their children in manufactories, etc., before they can legally be there. This action of those, who with so large an advantage of position should be the children's best friends, often defeats the purpose of the law. Now that employers generally understand its provisions there is less occasion than formerly to invoke its penalties—although there have been a few prosecutions—but in general there is a cordial acquiescence in its requirements. The principle of the law seems to be well approved. Any thing the law can wisely do to promote education among those not otherwise likely to enjoy its benefits is a service to the Commonwealth. That this law is such seems entirely clear to the Board. Suggestions of such modifications as seem calculated to promote the best interests of those affected by it will be found in the accompanying report of the Secretary and Agents of the Board.

TOWN MANAGEMENT.

The Board regrets the failure of the proposition before the last session of the General Assembly to put the entire management of schools into the care of the towns. The considerations favorable to such action, which its observation does but constantly confirm, have been heretofore at length expressed in the reports of this Board and need not here be repeated. Neither the results of experiment nor sound reason are against the proposition. The very considerable advance made in the present support over that which the project received when previously brought forward gives good reason to hope that before very long the State will adopt the policy of a single instead of a double management of its schools.

WOMEN AS SCHOOL OFFICERS.

The law of last year providing for the eligibility of women to certain school offices removes any doubt that may have

existed as to the legality of their service in such capacity. In certain places they have already served on boards of school visitors, and at the October town elections eight of them were placed thereon. In other States they have occupied positions connected with school management of considerable responsibility. It seems to the Board that there are many localities that would be benefited if their competent women, ex-teachers and others, could be induced to serve the public in educational trusts.

EVENING SCHOOLS.

The Board invites attention to the laws providing for evening schools for those over fourteen years of age, and suggests to all towns having within their limits persons likely to be benefited by such schools that it would be of much value both to scholar and town to provide them. Toward the expense of such schools maintained not less than fifty evenings in a year the State furnishes one dollar and fifty cents for each average attendant. In places where they have been tried they have worked well. A list of such places with other statistics concerning them may be found on page 58. Industrial conditions have greatly changed within a generation or two. Large numbers of children are put into factories at an early age. The pressure, above alluded to, to put them there at a too early age shows no signs of weakening. And so there comes a call to meet these new conditions and help those who crave help to stand on a better vantage ground in the struggle of life. Not all, possibly not most, will crave it. But the boy who, after a day's work in the factory, deliberately gives his evenings to improving his mind, and perseveres therein, resisting his own and others' promptings to pleasure-seeking, has in him that which it is well worth while to develop. To put a youth into contact with useful books and the stimulus of a good teacher not only provides him with the most satisfactory way of spend-

ing time while it is passing, but furnishes him food for thought during his working hours, improves and elevates his taste, equips him for better wages, better position, increases the probabilities of his becoming a tax-payer rather than a tax-consumer,—in short, it makes him more of a man.

COMPILATION OF SCHOOL LAWS.

Advantage has been taken of the completion of a new revision of the Statutes of the State to prepare a pamphlet of laws relating to educational matters for the information of those holding official positions connected with schools. This compilation will be more comprehensive, valuable and complete than any of its predecessors. The statutory provisions concerning each topic are followed by annotations showing briefly the points covered, with reference also to their places in the statutes, the dates of their enactment into law and the decisions of the Supreme Court. This can hardly fail to be of great service to all in any way connected with the management of schools. Its arrangement is so complete that it will yield to a slight examination many answers to questions that have heretofore made no small drafts upon the time of the Secretary and his assistants.

JAMES L. HOWARD.

ANTHONY AMES.

GEORGE M. CARRINGTON.

WILLIAM G. SUMNER.

EDWARD D. ROBBINS.

Hartford, Jan. 9, 1888.

REPORT OF THE SECRETARY.

To the Board of Education of the State of Connecticut:

Your Secretary respectfully submits his fifth annual Report.

In this Report the following subjects are referred to or discussed :

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|-----------------------------|---|
| 1. Financial Statement. | 1. Report of Principal. |
| (a) Receipts. | (b) Evening Schools. |
| (b) Expenses. | (c) Observation of Arbor Day. |
| (c) Indebtedness. | |
| 2. Scholars. | 5. School Houses and Libraries. |
| (a) Enumeration. | 6. Text-book on Physiology. |
| (b) Attendance. | 7. Town Management. |
| 1. Report of Agent. | 8. Legislation of 1887. |
| (c) Employment of Children. | (a) Public Acts. |
| 1. Reports of Agents. | (b) Private Acts. |
| 3. Teachers. | 9. Laws relating to Education. |
| (a) Teachers' Meetings. | (a) State Board of Education. |
| (b) State Examinations. | (b) Attendance, Instruction and Employment. |
| 4. Schools. | (c) Town Deposit Fund. |
| (a) Normal School. | |

The Appendix contains :

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|----------------------------------|--|
| 1. Statistical Tables. | 2. Enumeration of 1887 by Districts. |
| (a) Receipts. | 3. Amounts paid for Libraries. |
| (b) Expenses. | 4. Extracts from Reports of Visitors. |
| (c) Scholars. | 5. Questions used at State and Normal School Examinations. |
| (d) Teachers. | |
| (e) Schools. | |
| (f) School houses and Libraries. | |

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|-----------------------------------|------------------------------------|
| 6. State Text-book on Physiology. | 8. Catalogue of Normal School. |
| 7. Elementary Lessons in Science. | 9. Report of Council of Education. |
| | 10. List of School Visitors. |

The statistical summary hitherto given at length at the beginning of the Report, has been divided and the parts will be found under the subjects to which they specially refer.

The compilation and arrangement of the returns from towns, forming the statistical tables of the Appendix, are wholly the work of Mr. A. J. Wright. He has also carefully collected and tabulated facts relating to management of the Town Deposit Fund.

A part of the laws relating to education, compiled by order of the General Assembly, with a brief commentary and history of important provisions are made a part of this Report.

FINANCIAL STATEMENT.

Summary of Statistics for 1886-7.

Dividend per child from School Fund,	-	\$ 0.75
Income of School Fund distributed,	- -	114,945.00
Amount paid for schools from State Tax,	-	229,890.00
Income of Town Deposit Fund,	- - -	38,835.65
Income of Local Funds,	- - -	7,723.20
Amount raised for schools by Town Tax,	-	825,554.26
Increase for the year,	- - -	66,756.43
Amount raised for schools by District Tax,	-	499,804.42
Increase for the year,	- - -	51,799.09
Amount of voluntary contributions for schools,	-	6,844.44
Amount for schools from other sources,	-	69,772.22
Total amount received for public schools from all sources,	- - - -	1,793,369.19
Increase for the year,	- - - -	130,350.02
Amount expended for teachers' wages,	-	1,227,412.60
Increase for the year,	- - -	39,356.56
Amount expended for fuel and incidentals,	-	148,786.24
Increase for the year,	- - -	21,141.64
Amount expended for repairs of school buildings,	-	104,911.91
Increase for the year,	- - -	27,573.49

Amount expended for libraries and apparatus, -	\$13,192.42
Increase for the year, - - -	2,130.68
Amount expended for new school houses, -	117,860.67
Decrease for the year, - - -	98,540.48
Amount expended for other school purposes, -	156,207.22
Decrease for the year, - - -	14,957.04
Total amount expended for public schools, -	1,768,371.06
Decrease for the year, - - -	23,295.15
Estimated value of school property in the State,	5,739,895.01
School district indebtedness of the State, -	1,523,555.61
Cost of Superintendence of schools, - - -	31,083.16
Number of districts that raised a tax during the year,	128
Cost of new school houses, - - -	56,831.89

School Fund.—On the 30th of June, 1887, the principal of the School Fund was invested as follows:

Bonds and Mortgages	\$1,681,974.26
Real Estate	135,957.36
Bank Stock	185,847.61
Cash	9,075.04
Total	<u>\$2,012,854.27</u>

The dividend declared March 1, 1887, was \$114,945.00—\$860.50 more than last year.

In January, 1887, the school census showed 153,260 persons between four and sixteen years of age. The above dividend enabled the Commissioner to distribute to the towns "for the support and encouragement of the public or common schools throughout the State, and for the equal benefit of all the people thereof" seventy-five cents for each person enumerated.

In the year ending August 31, 1887, 6.4 per cent. of all the moneys received for schools was derived from this fund.

Town Deposit Fund.—The amount reported as interest on town deposit fund is \$38,835.65.

The origin and present condition of this fund is stated on pages 134–147.

Amount of fund as reported for 1887, was \$753,326.87.

Invested in Town Securities (orders, bonds, etc.) -----	\$528,593.88
Notes and Mortgages -----	144,862.13
Bank Stock -----	21,184.51
Savings Banks -----	29,135.48
Railroad and Water Bonds -----	10,400.00
In State Treasury -----	17,328.48
Cash in hands of treasurers -----	1,822.39
	<hr/>
	\$753,326.87

In the amount [\$528,593.88] reported as invested in town securities is included a large sum upon which towns do not make any pretense of paying interest; other considerable sums which the town officers never heard of; other sums invested in town farms, public buildings, etc. The reports from officers charged with the care and legal application of this fund unmistakably indicate that not a dollar* thus invested, in any sense promotes education in the common schools, as the condition of the trust requires. It follows that this large trust fund given upon plain conditions, has been, to the extent of these town orders and bonds, entirely estranged, if not illegally diverted from its original purpose.

Of the notes secured by mortgage a large part, not accurately ascertained, are worthless. A few towns hold some unproductive real estate taken on foreclosure.

In fine, five-sevenths of this fund devoted by the state and received in trust by the towns, if not dead, is in a profound and very unhealthy sleep.

The interest is not a substantial sum of money which can be devoted to schools, but a fiction, legal or illegal, which appears on the books or not, as the town desires.

Local Funds.—The amount of interest on local funds is reported to be \$7,723.20. While no investigation has been made it is probable that these funds have been absorbed, and have practically disappeared in the same manner as the town deposit fund; that this showing of interest is merely a method of book-keeping, and that there accrues therefrom no real addition to the amount appropriated to public schools.

State Tax.—From the State tax the Treasurer paid to the towns \$229,890.00 at the rate of \$1.50 for each enumerated

* A considerable sum, perhaps \$20,000, is held by town officers awaiting investment. This when invested would be really productive.

person. This is 32.9 per cent. of the whole amount paid into the State treasury from the 2 mill tax, and is 12.8 per cent. of the whole sum devoted to the support of public schools.

Town Tax.—The 167 towns of the State raised by taxation for the support of schools \$825,554.26, an increase of \$66,756.43, as compared with last year.

The average rate of town taxation for the support of schools is 2.36 mills, the highest rate in any town being 6.59 mills and the lowest 0.73 mills. Of the sum above named \$460,254.00 or 55.7 per cent. was raised in twenty cities and towns.

Town taxation supplies 46 per cent. of the amount received for the support of schools.

District Tax.—128 of the 1,424 school districts raised \$499,804.42 by taxation. These 128 districts were located in 64 towns. This large sum was assumed by these districts in addition to the amounts appropriated to each by the towns in which they are situated, and is 27.8 per cent. of the whole sum received for the support of schools. 82.7 per cent. is raised in 25 cities and towns.

Many districts have become independent because they are wealthy and practically support their own schools. The privileges of the children in these districts are large and substantial. Their advantages force to our attention by contrast, the condition of districts which having a small list of taxable property or no liberality deprive children of good schools and think this course is economical. The result is that the poor and remote are obtaining education less in quantity and inferior in quality to those who are in the centres of population and wealth, and the inequality becomes yearly more pronounced.

Other Sources.—Under this head are classed (a) sums received from tuition, (b) from sale of school property, (c) and library money. More than one-half of the \$69,772.22 is received from tuition charges.

We have then the following summary of the receipts for the year ending August 31, 1887:

From permanent funds—

School Fund	\$114,945.00
Town Deposit Fund	38,835.65
Local Funds	7,723.20
	<hr/> \$161,503.85

From taxation—

Town Tax	\$825,554.26
District Tax	499,804.42
State Tax	229,890.00
	<hr/> \$1,555,248.68

Voluntary contributions	6,844.44
Other sources	69,772.22
	<hr/>

Total \$1,793,369.19

The following table gives the several amounts received from the main sources above set out, for each of the past twenty years with the per cent. which each constituted of the total receipts for schools.

Year.	School Fund.	Per cent.	District Tax.	Per cent.	Town Tax.	Per cent.	State Tax.	Per cent.
1866	\$10,471 94	1.3	\$317,937 37	45.0	\$ 93,726 10	13.2	-----	-----
1867	132,972 40	18.5	466,931 90	47.4	140,750 00	15.2	-----	-----
1868	136,015 00	13.0	467,804 77	44.8	100,347 35	15.3	-----	-----
1869	124,082 00	9.7	421,340 81	38.7	115,118 20	32.7	-----	-----
1870	103,147 00	8.4	498,846 09	33.6	568,387 50	39.3	-----	-----
1871	128,468 00	8.4	410,708 11	27.2	641,837 76	42.6	-----	-----
1872	131,748 00	9.1	400,000 56	33.5	642,144 14	44.5	\$ 65,874 00	4.5
1873	132,848 00	8.5	400,000 56	33.3	598,873 44	38.8	109,272 00	12.0
1874	113,000 00	8.2	502,500 80	31.1	660,856 88	41.5	200,202 00	12.3
1875	148,220 60	8.6	463,775 10	22.7	668,167 13	41.9	202,116 00	12.6
1876	133,100 00	8.6	400,000 56	25.6	711,167 92	45.5	202,783 50	12.9
1877	137,000 00	10.1	349,949 89	23.2	697,103 26	46.2	205,891 50	13.6
1878	138,475 00	9.1	300,120 54	23.9	682,407 50	45.2	207,712 50	13.7
1879	124,000 00	8.9	341,018 81	24.4	635,328 58	45.6	207,642 00	14.9
1880	112,100 00	7.6	416,306 33	28.0	649,987 83	43.8	210,352 50	14.1
1881	100,611 70	6.7	393,007 82	26.5	670,146 35	45.2	215,596 50	14.5
1882	87,700 20	5.9	382,515 80	22.0	760,105 40	45.8	219,393 00	12.6
1883	112,096 50	7.1	400,000 56	28.9	840,365 39	53.7	224,193 00	14.3
1884	112,050 75	6.4	484,343 55	27.8	810,253 93	46.6	225,901 50	13.0
1885	120,855 20	6.9	525,119 36	30.2	764,688 00	44.0	226,603 50	13.0
1886	114,000 00	6.8	448,005 33	26.9	758,797 83	45.6	228,249 00	13.7
1887	114,945 00	6.4	499,804 42	27.8	825,554 24	46.0	229,890 00	12.8

Expenses.

Teachers' Wages.—The amount expended for teachers' wages is \$1,227,412.60 which is larger than last year by \$39,356.56, and is 69.4 per cent. of the whole sum expended for schools.

Fuel and Incidentals.—This sum \$148,786.24 is 8.3 per cent. of the total expense.

The summary of expenses is as follows :—

Teachers' Wages	\$1,227,412.60
Fuel and Incidentals	148,786.24
New School-houses	117,860.67
Repairs	104,911.91
Libraries and Apparatus	13,192.42
Other Objects	156,207.22
Total	\$1,768,371.06

This is less than the amount raised by \$24,998.13. \$638,-540.54 or 35.2 per cent. of the whole sum was expended in the towns of New Haven, Hartford, Waterbury, and Bridgeport, and \$1,216,335.89 or 68.7 per cent. in twenty-five cities and towns.

For each child who was registered in public schools and whose name appears in the enrollment, there was expended an average of \$13.12.

For each person enumerated there was expended an average of \$10.76.

The cost of educating each child in average attendance was \$20.89.

This is by far the most satisfactory and valuable method of estimating and stating the cost of schools because :

1. The children in attendance* are those upon whom the money is actually spent.

2. The average attendance is uniformly ascertained, accurately returned, and can contain no material error.

3. This statement will be sensitive to register every rise and fall in attendance and expense.

The cost of educating the children who actually attend varies from \$42.53 the highest in any town, to \$10.89 the lowest.

The following table gives the receipts and expenses since 1866, with the average cost of educating children upon each of the bases mentioned.

* For average attendance, see p. 25.

Year.	Receipts.	Expenses.	Cost for each child enumerated.	Cost for each child registered.	Cost for each child in attendance.
1866	\$704,986 70	\$716,203 79	\$5.94	----	\$13.79
1867	983,806 32	962,728 21	8.14	----	17.08
1868	1,043,086 71	1,102,170 19	8.44	\$10.49	18.08
1869	1,293,152 83	1,278,827 01	10.23	12.05	20.97
1870	1,484,016 35	1,621,387 76	11.83	13.41	23.69
1871	1,503,617 62	1,496,980 95	11.70	13.23	23.98
1872	1,442,669 01	1,528,440 07	10.95	12.56	22.95
1873	1,542,439 20	1,477,442 72	11.60	13.44	24.08
1874	1,612,947 64	1,697,573 97	12.08	13.52	23.98
1875	1,532,858 11	1,552,583 85	11.81	14.17	23.22
1876	1,560,365 06	1,529,181 52	11.34	13.10	22.13
1877	1,536,218 67	1,510,222 56	10.99	12.63	20.87
1878	1,509,158 85	1,506,477 06	10.00	12.50	20.52
1879	1,377,972 54	1,375,880 46	10.05	11.65	19.14
1880	1,481,680 93	1,408,374 74	10.57	12.37	20.14
1881	1,482,024 39	1,476,690 95	10.31	12.41	20.43
1882	1,563,750 30	1,553,005 10	10.69	12.90	21.46
1883	1,733,302 58	1,813,486 11	12.04	12.33	19.85
1884	1,757,023 36	1,777,277 04	12.21	12.47	19.86
1885	1,735,334 21	1,852,291 45	12.31	12.40	19.72
1886	1,766,004 17	1,791,606 21	12.35	12.54	19.73
1887	1,733,302 58	1,768,371 06	10.76	13.12	20.89

Under every head the money derived from the people for the maintenance of schools is larger than last year. The sums raised by town and district tax have increased by \$66,745.43 and \$51,799.99 respectively; and the whole sum received by \$130,350.02.

Comparing the receipts with the expenses, we find that for the first time in five years the receipts have exceeded the expenses.

It is noteworthy and gratifying that while expenses have diminished, the amount paid for teachers' wages and incidentals has increased. The noticeable advance in the amount paid to teachers—\$39,000—is not entirely accounted for by the increase in the number of teachers,—57. It indicates a small general advance in teachers' wages—a conclusion which is confirmed by the independent returns touching specially upon that point. There has been an increase in the amount expended for libraries, material and appliances. While it is not safe to rely implicitly upon returns nor to unduly regard the fluctuations of these statistical exhibits, it can be said that for five years just past there has been an annual increase in expenditure where expenditure is likely to promote good schools, viz: in teachers' wages, libraries, and aids to school work. The interest in libraries is proven by the fact that there has been more money raised by voluntary contributions and more paid by the state than in any previous year.

The above showing of receipts is strong attestation of the liberality of the people of this State toward the common schools. Many growing cities and towns cheerfully assume the responsibility which a large population imposes. In towns where population is diminishing the difficulty is to deal fairly with the children who remain. Even more liberality of mind is necessary to cause the funds, both state and local, to support and encourage the common schools, "for the equal benefit of all the people."

Indebtedness.—Below will be found a table giving indebtedness for school purposes. This table exhibits in most cases district and not town indebtedness. Town indebtedness is distinguished by a star (*).

Towns.	No. of Districts having Indebtedness.	Total Amount of Indebtedness.	Towns.	No. of Districts having Indebtedness.	Total Amount of Indebtedness.
Hartford	5	{ \$432,500.00	Norwich	3	\$66,453.99
Berlin	1	{ *215,000.00	Colchester	1	408.80
Bloomfield	1	125.00	East Lyme	2	2,050.00
Bristol	5	200.00	Griswold	1	300.00
Burlington	1	13,723.35	Groton	4	4,894.62
Canton	1	100.00	Lebanon	1	150.00
East Hartford	1	500.00	Preston	1	1,025.00
East Windsor	1	400.00	Stonington	4	10,706.47
Enfield	7	10,652.64			
Farmington	2	9,430.00	8 Towns	17	\$85,988.88
Granby	2	2,250.00	Danbury	2	\$39,742.00
New Britain	2	120.00	Bethel	2	4,800.00
Newington	1	8,000.00	Darien	2	3,719.47
Southington	2	1,600.00	Fairfield	2	3,475.00
South Windsor	4	7,093.00	Huntington	1	27,100.00
Wethersfield	2	276.00	Newtown	1	115.00
Windsor	2	756.89	Norwalk	9	62,290.00
Windsor Locks	4	7,948.68	Redding	1	27.70
	1	30,000.00	Ridgefield	1	1,882.47
18 Towns	44	\$740,675.56	Stratford	3	40,750.00
New Haven	2	\$85,000.00	Trumbull	1	35.75
Derby	7	30,785.00	Westport	2	450.00
East Haven	1	250.00			
Meriden	9	†107,585.00	12 Towns	27	\$184,387.39
Orange	1	2,000.00			
Seymour	1	35,000.00			
Wallingford	2	37,655.73			
Waterbury	4	60,409.16			
8 Towns	27	\$358,684.89			

† A Town indebtedness of \$80,000 for High School, is included in this sum.

Towns.	No. of Districts having Indebtedness.	Total Amount of Indebtedness.	Towns.	No. of Districts having Indebtedness.	Total Amount of Indebtedness.
Brooklyn	2	\$4,610.00	Middletown	2	\$59,145.78
Ashford	1	.65	Haddam	1	95.00
Eastford	2	83.00	Chester	2	275.00
Hampton	1	80.00	East Haddam	9	1,649.50
Killingly	1	15,000.00	Portland	1	4,562.00
Plainfield	2	2,828.00	Saybrook	1	10,000.00
Putnam	2	3,167.56			
Thompson	1	2.00	6 Towns	16	\$75,727.28
Windham	1	5,000.00			
Woodstock	3	198.50			
10 Towns	16	\$30,969.71			
Colebrook	1	\$100.00			
New Hartford	2	9,169.69	Tolland	1	\$7.00
Norfolk	1	550.00	Hebron	1	150.00
Watertown	1	1,007.39	Stafford	3	24,871.44
Winchester	1	11,000.13	Vernon	3	266.25
5 Towns	6	\$21,827.31	4 Towns	2	\$25,294.69

SUMMARY BY COUNTIES.

Counties.	No. of towns in which there are districts that have Indebtedness.	No. of districts that have Indebtedness.	Total Amount of Indebtedness.
Hartford	18	44	\$740,675.56
New Haven	8	27	358,684.89
New London	8	17	85,988.88
Fairfield	12	27	184,387.39
Windham	10	16	30,969.71
Litchfield	5	6	21,827.21
Middlesex	6	16	75,727.28
Tolland	4	8	25,294.69
The State	71	161	\$1,523,555.61

INDEBTEDNESS.

1884.	1885.	1886.	1887.	1888.
\$859,599.87	\$1,412,732.14	\$1,347,571.32	\$1,405,595.69	\$1,523,555.61

The interest on this sum is not far from \$61,000.00.

In the tables of the appendix, interest on the various sums is added to the expense of schools in the respective towns be-

cause interest is properly a school charge in the nature of rent. Schools are carried on in buildings erected with borrowed money, interest must be met by increased taxation, and to nothing but schools can this increased taxation be attributed.

It is manifestly improper to overlook this charge in ascertaining the cost of education, and clearly right to show just how much this cost is increased by reason of this charge. If one district is in debt for its buildings and another is not, the former is paying more for every scholar in attendance than the latter, and the debt is the cause of the difference.

These debts may be and generally are evidence of needed generosity toward schools. If good air, good heating, convenient rooms and appliances for teaching have been gained, schools are able and likely to accomplish more, and the money paid as interest is a prudent contribution to education. On the other hand there is no justification for frippery or extravagance.

ENUMERATION AND ATTENDANCE.

Summary of Statistics, 1886-7.

Number of children between 4 and 16 years of age,					
in January, 1887,	-	-	-	-	153,260
Increase for the year,	-	-	-	-	1,094
Number of scholars registered in winter,	-	-			108,309
Increase for the year,	-	-	-	-	1,096
Number of scholars registered in summer,	-	-			100,169
Increase for the year,	-	-	-	-	1,003
Number registered who were over 16 years of age,					3,667
Increase for the year,	-	-	-	-	140
Number of different scholars in public schools,	-				125,794
Increase for the year,	-	-	-	-	255
Number of enumerated children in other schools					
than public schools,	-	-	-	-	15,953
Increase for the year,	-	-	-	-	778
Number of children between 4 and 16 years of age					
in no school,	-	-	-	-	20,821
Increase for the year,	-	-	-	-	433
Number between 4 and 16 years of age in no school,					
as shown by enumeration returns of January,					
1887,	-	-	-	-	26,834
Increase for the year,	-	-	-	-	1,052

Number between 8 and 14 who attended no school, as shown by enumeration returns of January, 1887, - - - - -	2,184
Increase for the year, - - - - -	268
Number in schools of all kinds, - - - - -	141,747
Increase for the year, - - - - -	1,033
Average attendance at public schools in winter, -	82,285
Decrease for the year, - - - - -	664
Average attendance at public schools in summer, -	75,678
Decrease for the year, - - - - -	1,041
Percentage of whole number registered in the year, as compared with the number enumerated in January, 1887, - - - - -	82.07
Decrease for the year, - - - - -	.47
Percentage of children in schools of all kinds, -	92.48
Increase for the year, - - - - -	.01
Percentage of those enumerated registered in winter,	70.67
Increase for the year, - - - - -	.22
Percentage of those enumerated registered in summer,	65.35
Increase for the year, - - - - -	.19
Percentage of average attendance in winter, -	75.97
Decrease for the year, - - - - -	1.39
Percentage of average attendance in summer, -	75.50
Decrease for the year, - - - - -	1.86
Average attendance in winter, as compared with number enumerated in January, 1887, -	53.68
Decrease for the year, - - - - -	.83
Average attendance in summer, as compared with number enumerated in January, 1887, -	49.38
Decrease for the year, - - - - -	1.03
Number of districts in which the average attendance for the year ending Aug. 31, 1887, was 8 or less, - - - - -	215

The following table gives enumeration, registration and attendance since 1866 with percentages.

Report of the Year.	Average length of Schools.	Enumerated.	Registered.		Different Scholars Registered.	Per cent. Registered.	No. in both Public and Private Schools	Per cent. in all Schools.	Attendance.		Per cent. of aver. attendance.
			Winter.	Summer.					Winter.	Summer.	
1866	----	114,825	78,149	71,603	----	----	----	----	57,131	51,751	47.41
1867	----	118,780	78,206	70,837	----	----	----	----	57,464	50,560	45.47
1868	----	120,884	80,148	73,865	----	----	----	----	57,117	52,299	45.25
1869	163.05	123,650	82,140	75,177	99,390	80.38	----	----	59,489	53,645	45.74
1870	161.75	124,082	88,348	78,865	105,313	84.87	114,896	92.60	64,707	56,300	48.77
1871	168.51	125,409	94,092	83,192	110,640	88.19	119,944	95.64	66,902	58,348	49.13
1872	172.41	128,468	94,408	83,095	113,588	88.50	122,342	95.23	67,018	58,349	48.79
1873	173.34	131,748	94,787	83,874	114,805	87.14	123,834	93.99	67,599	58,113	47.70
1874	174.18	132,908	95,199	86,987	114,857	86.41	133,386	92.63	67,172	60,905	48.18
1875	176.29	133,528	99,550	89,674	119,298	89.34	127,720	95.65	71,433	63,052	50.35
1876	176.26	134,976	98,402	88,595	119,489	88.53	128,634	95.30	71,935	65,251	50.81
1877	178.13	135,189	98,923	89,832	119,106	88.10	128,922	95.36	74,309	66,621	52.14
1878	177.52	137,099	99,557	90,845	119,208	86.95	129,388	94.38	75,732	68,588	52.63
1879	178.47	138,407	100,288	91,433	119,828	86.56	130,937	94.60	77,218	69,912	53.15
1880	178.60	138,428	99,662	91,860	119,382	86.24	130,597	94.34	75,678	69,607	52.47
1881	179.02	140,235	100,596	90,614	119,694	85.35	132,337	94.37	78,421	68,672	52.44
1882	179.98	143,745	100,098	92,259	119,381	83.05	131,856	91.73	76,028	69,050	50.42
1883	179.66	146,188	101,759	92,475	121,185	82.90	134,084	91.72	77,041	68,636	49.86
1884	178.77	149,466	102,122	94,214	120,437	80.58	135,207	90.52	78,423	71,328	50.09
1885	179.55	150,601	103,921	97,490	123,280	81.85	137,860	91.53	80,075	74,787	48.80
1886	179.18	151,069	107,097	98,694	125,718	83.21	140,198	92.80	82,654	75,450	52.32
1887	179.74	152,166	107,213	99,166	125,539	82.50	140,714	92.47	82,949	76,719	52.46
1888	180.18	153,260	108,309	100,169	125,794	82.07	141,747	92.48	82,285	75,678	51.53

The school census made in January, 1887, showed :

1. That there were 153,260 persons between 4 and 16 years of age. If the ratio of 1880 still obtains, viz: 4.44 to 1, the population of the state is 680,474.

2. 126,426 were reported as having attended school. This attendance may have been for one or a few days only. It includes those who attended private as well as public schools, but would not include any over 16 years of age.

3. Of the whole number enumerated, 26,834 are reported as having attended no school.

4. Of these non-attendants, 10,203 were reported to be under 5, and 8,891 were between 5 and 8 years of age. Thus 19,094 were either too young to attend, or were below the compulsory limit. 5,556 were reported to be over 14, and had passed the compulsory limit.

5. We have left 2,184 non-attendants between 8 and 14, the limit of compulsory attendance. This is larger than last year by 268.

The following table gives similar returns of enumeration for five years :

Report of	Enumerated.	No. that attended school.	Non-attendants.	Non-attendants under 5.	Non-attendants between 5 & 8.	Non-attendants bet. 8 & 14.	Non-attendants bet. 14 & 16.
1884	149,466	121,492	27,974	9,634	9,625	2,841	5,874
1885	150,601	123,047	27,554	9,358	9,788	2,595	5,088
1886	151,069	125,092	25,977	9,151	9,002	2,137	5,687
1887	152,166	125,539	25,782	9,997	8,846	1,916	5,023
1888	153,260	126,426	26,834	10,203	8,891	2,184	5,586

The number of children between 4 and 16 has annually increased since 1858. The average annual increase has been 1,726.

In 1879, 86 out of every 100 children enumerated were enrolled in public schools, and 53 out of every 100 enumerated were in regular attendance. In 1887, 82 and 49 out of every 100 were enrolled and in attendance respectively. The fact which deserves attention is that a decreasing proportion of the persons enumerated attend school.

Among the causes of this falling off are,

1. The large towns exclude all children under 5, and everywhere there is little disposition to send very young children.

2. The limit of 60 days has become in many places the standard, and instead of long periods of attendance there have been long periods of work, with intervals of school.

The law prohibiting employment of children under 13, would naturally increase the number in attendance; but so many advanced with a bound from 11 or 12 to 14, that in few schools has any increase from this cause been noted. The difficulties encountered in ascertaining the ages of children, whether by reference to town or school records, are very great. Without doubt many children under 13 are to-day escaping the provisions of the law relating to employment and attendance through false statements of parents.

It cannot be too strongly insisted that this census should be taken at the right time and in the right way. The time in the middle of the school year is not opportune to the needs of schools. From September 1st to February 1st, there is little chance to note illegal absence, and there is abundant opportunity to avoid attendance. A census early in the school year,—in September or October,—would be a guide to the

number who ought to attend, and a means of ascertaining accurately those who are attending. Nor is the time as now ordered, better than any other time for the purpose of ascertaining the basis of the distribution of State grants.

The average attendance in all the schools was 853 less than last year.

This contraction is in part explained by the opening in several large towns of private schools. This special cause cannot long operate, because the number which can be withdrawn from public to private schools is limited, and the limit will soon be reached. Moreover, private schools cannot exist in competition with public schools, as long as the latter maintain a clear superiority. This superiority has thus far been easily maintained, and no considerable number of people can be enticed or compelled to diminish the privileges of their children. So long as the best education is found in the public schools, these schools will attract the great body of children.

The law which requires all children under 13 years of age, to attend 120 days in each year, places this State in the lead in respect of compulsory attendance. In districts where school is open not longer than six months in the year, conformity to the law will permit no absence not guarded by the recognized legal excuses.

The law now regards each week's absence a distinct offence on the part of the parent, who may be proceeded against at once, and also permits the State Board of Education more actively to engage in enforcing attendance.

The above enactments did not take effect until June 1st, near the close of the school year, and have not affected attendance of the year covered by this report.

There are many parents who assert what they call their right of governance; such think it unjust that they must send their children to school, and thus lose the profit of their labor. Others, timid about interfering with the relation of parent and child, prefer that the child should suffer abuse and deprivation rather than disturb the principle of parental control.

There is no necessity of confusion or hesitation here. That parents may have the governance of their children is not an unalterable principle upon which unchangeable laws are based.

It is only a proposition based upon extensive experience and embodying the general conviction that parents inspired by instinctive love will treat their children wisely and humanely. There is a strong probability that they will so treat them. This presumption of good will yield to a certainty of evil. When it is certain that a parent is injuring his child a point is reached where society says his action is not reasonable, and the law says is not lawful. It may be unreasonable long before it is unlawful, but it is merely a question of degree when the legal limit is overstepped.

In the above enactments, responsibility for the education of the child is placed upon the parent. It is admitted that the parent may and ought to understand what is the best education for his own child. But at the point of no education or of limited education resulting in mental starvation, the law undertakes to make the parent do his duty. If in the exercise of his judgment and right of control, the parent gives no education he has overstepped the reasonable limit of control and transgressed the positive enactment. He is now compelled to do what he ought to do.

Similarly there is no principle which confers upon a parent the right to cause his child to work for gain or for the support of the family. It is supposed that the labor which the parent compels the child to perform will result in good to the child. If the mind or body of the child are injured by work in any industry, the limit of reason is again overstepped, and the law compels the parent to refrain from doing what he ought not to do. Both in depriving the child of education and in causing him to spend his early years in labor the parent is not conforming to what the experience and convictions of society regard as right. He is not acting in a reasonable manner, and the law says he is not acting in a lawful manner.

The enactments relating to attendance and employment have restrained and mitigated in many cases the harshness of parental control. If they have accomplished nothing more their operation has been beneficent.

Hereafter attendance at a private school will not satisfy the law unless registry of attendance is kept and is open to agents of the State. The State exerts its authority to compel attend-

ance at public and private schools impartially. It is clearly just that the record touching attendance at both should be so far exposed that the result of its action and the ground of farther action should be within its observation.

The number attending private schools has heretofore been approximately stated. This law will secure accurate returns.

Of all the duties which the town and state have assumed, none is more imperative than that of securing regular attendance. The number who are absent or irregular is immeasurably larger than it should be and immeasurably larger than it might be.

To reduce the number of irregular attendants, to bring every child in the state to our common schools, there is no way so simple and so certain as making school a place of interest. This draws those who otherwise would not come, and keeps many who would not otherwise remain. To this end every local and state energy should be directed, and upon this, main reliance should be placed.

The following table shows the steady increase in the number of small schools.

	Report of				
	1884	1885	1886	1887	1888
Schools averaging less than 8	165	166	180	198	215

This means that more than 200 schools with all the attendant expense are maintained for less than 1600 scholars.

Below will be found the Report of Mr. Giles Potter, the Agent of the Board.

To Mr. CHARLES D. HINE,

Secretary of State Board of Education:—

Sir: I submit the following report of my work as Agent of the Board for the twelve months ending August 31st, 1887.

During that period in performing my duties I visited the following towns:—

Branford, Bridgeport, Bridgewater, Bristol, Canterbury, Chatham, Cheshire, Clinton, Colchester, Cornwall, Cromwell, Danbury, Derby, Eastford, East Haven, East Lyme, Enfield, Farmington, Griswold, Groton, Guilford, Haddam, Hartford, Huntington, Killingly, Ledyard, Litchfield, Madison, Meriden, Middle-

field, Middletown, Montville, New Canaan, New Hartford, New Haven, New London, New Milford, Newtown, North Branford, Norwalk, Norwich, Orange, Oxford, Plainfield, Plainville, Plymouth, Portland, Preston, Putnam, Ridgefield, Rocky Hill, Saybrook, Seymour, South Windsor, Sprague, Stafford, Stonington, Stratford, Suffield, Thomaston, Vernon, Waterbury, Waterford, Windham.

Towns visited.....	64
Cases of absence from school investigated.....	552
Visits to schools.....	137
Visits to factories and other places of employment.....	42
Visits to homes of children not attending school.....	388
Children found to be unlawfully absent from school..	293
Children found to be unlawfully employed.....	54
Prosecution of parents and others having control of children for failure to cause them to attend school.....	30
Prosecutions of employers.....	6
Boys refusing to attend school sent to State Reform School.....	15
Girls refusing to attend school sent to the Industrial School.....	1
Neglected children sent to County Homes.....	5

In some of the towns named above considerable time was occupied in examining the lists of names of children enumerated in each district and in comparing the names with those on the school registers, and in visiting those families whose children, according to the records, had failed to attend school as the law requires. But most of the towns were visited with some special cases of neglect in view.

Owing to the fact that manufacturing establishments were being visited by special agents, I gave less attention to children in the towns and villages where such establishments are situated than I had done in former years, when I visited many families in such places. This accounts for the difference in the number of homes visited during the past year and the numbers reported in some former years. In some of the towns above named it required considerable time to investigate and correct a single case of neglect.

I have endeavored to follow up more thoroughly than formerly cases where it had been found that there had been criminal neglect on the part of parents and others having control of children. In doing this a much larger number of parents have been prosecuted for failing to send their children to school than in any former year.

Efforts have been made to secure compliance with the compulsory school laws without resort to severe measures. But notices and admonitions would soon cease to have any effect if it were not known that penalties are often imposed for violations of these laws. A larger number of prosecutions does not, therefore, indicate greater neglect on the part of parents and others, but that the cases have been more carefully kept in view after admonitions have been given. A smaller number of cases strictly followed up with the law judiciously enforced have more influence with those who are inclined to be negligent, than notices and admonitions to a greater number who are then lost sight of.

Truant officers in places where they have been employed have done excellent service and often corrected the wayward tendencies of children who were ungoverned at home. Observation, however, has convinced me that a large part of the cases which have required the attention of such officers could have been corrected by the parents and would have been, had the parents felt that they themselves were to be punished if the children were not in school. There have been cases where the children were more affected by fear that their parents would have to pay a fine than by fear of the Reform School.

It is not true as some assert that free schools tend to make parents feel that they have no responsibility in the education of their children. The parents who have such feeling would not educate their children at all if the schools were not free, and education compulsory. Truant officers do not make the parents feel that they are not responsible for the absence of their children from school, for this feeling is quite as prevalent in towns where there are no such officers. But there are parents who do not feel responsible to any body nor for anything. They are mindful of their rights but not of their duties. They profess to blame employers if their children are too long absent from school even when it is only through their own solicitations and deceptions that they are employed at all. I am therefore more and more convinced that the proper way to make education compulsory is by enforcing the law on the parents.

Formerly our laws seemed to assume that it was demand on the part of employers for the services of children that kept them from school; then the truancy of the children. But lastly we have come to the true plan of enforcing parental responsibility. Children have been kept from school sometimes by the avarice of

parents, oftener by their apparent necessities but in a far greater number of cases by sheer neglect.

While parents and others who have care of children should be held strictly responsible for their education, there are many parents, who not having sufficient moral perception of their duty nor intelligent regard for their children to cause them to attend school, are incompetent to control them and not fit persons to be entrusted with their education. In such cases, if the children are young and not vicious, they should be provided for in the County Homes until other family homes can be provided for them. Or if too immoral for such treatment and requiring restraint and rigorous discipline, the Reform and Industrial schools seem to be the places for them. Doubtless most of the children who are committed to these reformatories would never have become subjects for such treatment, if they had had proper control and care in their earlier years. It is, nevertheless, true that children who are unaccustomed to obey and with habits of vice already formed and truant from school do need such restraint and control. As my duties bring me in contact with children after their vicious habits have been formed, I have found more frequent occasion for committing children to these institutions than to the County Homes.

The number of children stated to have been found absent from school in violation of law in my former reports was intended to include those only who had not attended sixty days and were not excusable on account of their mental or physical condition. The number which I have given in this report includes some others who had attended sixty days or more, but less than one hundred and twenty, and whose attendance was very irregular without any good reason. As the laws now require children over eight and under sixteen years of age to be at school regularly while the schools are in session, when not employed to labor,—those over fourteen being entirely excusable for that purpose, those thirteen years of age when they have attended school sixty days of the preceding twelve months, and those under thirteen when they have attended one hundred and twenty days,—it is very difficult to ascertain what number of children are unlawfully absent from school. Inspection of school registers, especially those of the small schools, show that but few children attend one hundred and twenty days, while some between the ages of eight and fourteen are not present sixty days during the year.

Probably our laws are now as strict as they can be made, re-

quiring more than similar laws in any other State. Yet it is obvious that there are many ways to evade them. The ages of the children, their health, their employment and the ability of the parents to clothe them are in many cases not known to any except their parents with sufficient exactness to warrant the use of legal measures to enforce attendance at school. It is possible, however, in many cases to show before the proper authority that there has been gross neglect and violation of law. The punishment of the guilty in such cases produces a salutary effect on others whose guilt in neglecting to cause their children to attend school it would not be possible to prove. In this way those who are negligent can generally be affected and made to comply in a fair degree with the requirements of the law.

I have not found many occasions for prosecutions of employers, for reasons above stated. Of the six who were prosecuted four were manufacturers and two were merchants. Two of the indictments contained counts for violations of the law prohibiting the employment of children under thirteen years of age. The other indictments were for employment of children under fourteen years of age who had not attended school sixty days of the preceding twelve months. In every case where I have caused the prosecutions of employers and parents during the past year, the persons complained of have pleaded guilty, or have been convicted. In one case of a parent, judgment was suspended entirely, in some others judgment was suspended in part as provided by the law. Four cases were appealed, but settled before trial in the Superior Court by paying the fines and costs imposed by the lower court.

In all the towns where any of these prosecutions have been made there has been prompt and faithful coöperation on the part of local officers.

There is evidently an increasing tendency to regard violators of these school laws,—those who rob children of their opportunity for education,—as deserving punishment quite as much as those do who violate any other criminal statutes.

The special reports which I have made since January, 1887, of most of the cases of neglect which I have investigated, including the condition of families visited and prosecutions made, will, I trust, render any further details of my work unnecessary at this time.

GILES POTTER.

New Haven, September 1st, 1887.

TABLE I.

TOWNS.	Establishments Visited.		Number Discharged Sept. 1, 1886.		Number found under 13 years.	Certificates Found.			Certificates required	How many Sch. att. certs. of children between 13 and 14.	Have Local Authorities taken action.
	Specially Inspected.	Visited.	Reported in reply to circular.	Reported to Agents.		Town Clerks.	Teachers.	Parents.			
HARTFORD CO.											
East Windsor.....	--	--	--	--	2	--	--	--	--	--	--
Enfield.....	--	--	--	--	2	--	--	--	--	--	--
New Britain.....	--	--	--	--	--	--	--	--	--	--	--
Southington.....	3	12	--	13	1	--	--	--	3	5	No.
NEW HAVEN CO.											
New Haven.....	11	36	--	16	3	2	8	5	15	--	No.
Branford.....	2	1	--	--	1	--	--	--	5	17	No.
Derby.....	--	--	--	--	--	--	--	--	--	--	--
Guilford.....	4	--	--	--	--	--	--	--	--	--	No.
Hamden.....	--	9	--	--	--	--	--	--	--	--	No.
Madison.....	1	4	--	--	--	--	--	--	7	--	No.
Milford.....	3	1	--	--	--	--	--	--	1	--	No.
Naugatuck.....	--	--	--	--	--	--	--	--	--	--	--
North Haven.....	2	11	--	--	1	--	--	--	--	--	--
Seymour.....	--	--	--	--	--	--	--	--	--	--	--
Wallingford.....	13	4	--	1	3	--	--	--	21	--	No.
Waterbury.....	--	--	--	--	--	--	--	--	--	--	--
NEW LONDON CO.											
New London.....	3	17	--	--	2	--	1	--	3	--	No.
Norwich.....	--	--	--	--	--	--	--	--	--	--	--
Griswold.....	8	--	--	3	6	--	9	15	20	12	No.
Sprague.....	--	--	--	--	--	--	--	--	--	--	--
Stonington.....	--	--	--	--	7	--	--	--	--	--	--
FARMINGTON CO.											
Bridgeport.....	41	34	--	9	3	1	18	7	14	--	No.
Huntington.....	--	--	--	--	--	--	--	--	--	--	--
Norwalk.....	3	4	--	10	--	--	--	--	3	--	No.
Stamford.....	5	12	--	--	1	--	--	5	6	3	No.
Stratford.....	1	3	--	--	--	--	--	--	--	2	No.
Trumbull.....	--	2	--	--	--	--	--	--	--	--	No.
Weston.....	--	--	--	--	--	--	--	--	--	--	--
Westport.....	--	--	--	--	--	--	--	--	--	--	--
Wilton.....	--	5	--	--	--	--	--	--	--	--	--
WINDHAM CO.											
Canterbury.....	--	--	--	--	--	--	--	--	--	--	--
Plainfield.....	5	--	--	--	1	--	--	5	3	6	No.
Putnam.....	--	--	--	--	--	--	--	--	--	--	--
Thomaston.....	--	--	--	--	4	--	--	--	--	--	No.
Windham.....	--	--	--	--	1	--	--	--	--	--	No.
LITCHFIELD CO.											
Litchfield.....	--	--	--	--	--	--	--	--	--	--	--
Colebrook.....	--	--	--	--	--	--	--	--	--	--	--
New Milford.....	1	3	--	2	--	--	--	--	--	--	No.
Watertown.....	--	--	--	--	--	--	--	--	--	--	--
Winchester.....	--	17	--	--	--	--	--	--	--	--	No.
Woodbury.....	3	3	--	8	2	--	--	--	1	--	No.
MIDDLESEX CO.											
Haddam.....	2	3	--	15	--	--	9	3	2	--	No.
Chatham.....	3	10	--	--	--	--	--	--	--	--	No.
Chester.....	--	12	--	--	--	--	--	--	--	--	No.
Cromwell.....	--	1	--	--	--	--	--	--	--	--	No.
Durham.....	1	1	--	--	1	--	--	--	--	--	No.
East Haddam.....	7	5	--	7	--	--	1	--	7	--	No.
Essex.....	--	5	--	--	--	--	--	--	--	--	No.
Middlefield.....	1	4	--	--	--	--	5	--	--	--	No.
Portland.....	1	1	--	14	--	--	5	--	--	5	No.
Saybrook.....	--	5	--	--	--	--	--	--	--	--	No.
TOLLAND CO.											
Ellington.....	--	1	--	--	--	--	--	--	--	--	No.
Stafford.....	--	--	--	--	3	--	--	--	--	--	No.
Vernon.....	--	--	--	--	--	--	--	--	--	--	No.
Willington.....	2	--	--	4	--	--	--	--	8	--	No.
TOTAL.....											
Previously reported.	218	207	104	46	3	56	40	113	50	--	--
	1,344	24	1,696	37	12	382	381	367	326	--	--
TOTAL.....											
	401	1,551	1,173	83	15	438	421	480	376	--	--

TABLE II.

NUMBER DISCHARGED FROM DIFFERENT INDUSTRIES.

TOWNS.	Cotton Mills.	Woolen Mills.	Silk Goods.	Dry Goods.	Fancy Goods.	Knit Goods.	Bed Comfortables.	Corsets.	Cotton Warps.	Carpets.	Paper Manufactu'r.	Paper Boxes.	Picture Frames.	Watches.	Spoons.	Lamps.	Belts.	Buttons.	Rubber Goods.	Harness Goods.	Bricks.	Bolts.	Hardware.	Clocks.	Clock Springs.	Pin Making.	Buckles.	Brass Goods.	Farm.	Agr'l'r'l Impl'm'ts.	Card Printing.	Cotton Yarn.	Twine.	Tin Ware.	Cutlery.	Stores.	Locks.	Lithographing.	Hair Good's.	Printing.	Webbing.			
HARTFORD Co.																																												
East Windsor.		2																																										
Enfield.		2																																										
New Britain.																																												
Southington.																																												
N'w HAVEN Co.																																												
New Haven.																																												
Branford.																																												
Derby.																																												
Guilford.																																												
Hamden.																																												
Madison.																																												
Milford.																																												
Naugatuck.																																												
North Haven.																																												
Seymour.																																												
Wallingford.																																												
Waterbury.																																												
N. LONDON Co.																																												
New London.			2																																									
Norwich.																																												
Griswold.		9																																										
Sprague.																																												
Stonington.		6																																										
FAIRFIELD Co.																																												
Bridgeport.								2																																				
Huntington.																																												
Norwalk.		10																																										
Stamford.																																												
Stratford.																																												
Trumbull.																																												
Weston.																																												
Westport.																																												
Wilton.																																												
WINDHAM Co.																																												
Canterbury.																																												
Plainfield.		1																																										
Putnam.																																												
Thompson.		4																																										
Windham.		3																																										
LITCHFIELD Co.																																												
Litchfield.																																												
Colebrook.																																												
New Milford.																																												
Watertown.																																												
Winchester.																																												
Woodbury.		8																																										
MIDDLESEX Co.																																												
Haddam.	13																																											
Chatham.																																												
Chester.																																												
Cromwell.																																												

EMPLOYMENT OF CHILDREN.

In the report of 1887, the record of active work by agents closed with January 5th, 1887, and is summarized on table following page 116 in Report for that year. The record of this report closes with August 31, 1887.

	August 31, 1887.	Jan. 5, 1887.	Total.
Number of towns visited.....	55	95	150
" establishments specially inspected	113	288	401
" " visited	307	1842	2149
" children under 13 found	46	37	83
" " reported as discharged...	104	1069	1173

On pages 36 and 37 will be found a table giving details of the work of agents.

The agents employed under this law have, since June 1st, 1887, given attention to the law relating to attendance.

Few cases of violation of the law have been discovered. These cases range all the way from pure accident to careless and illegal negligence.

The law is plain and simple and easy of administration. None of the evils which were apprehended from its passage have resulted. Business has not been affected, no appreciable number of families have left the State. Idleness has not increased, vagabondage is not prevalent, and cases of hardship have not been numerous.

There is no evidence that attendance at school has sensibly increased in consequence of the discharge of 1173 children from employment. As is stated on page 28, the rapacity of parents has impelled them to false statements concerning the ages of their children. The reports indicate extensive, deliberate and unqualified lying for the sole purpose of securing the money which their children can earn. It is difficult and generally impossible to fix this falsification by evidence admissible in court. The result is, that children are employed who ought not to be employed, and are out of school when they ought to be in school.

Employers have generally yielded cheerful obedience to the law, assisted in its execution, and approved its form and principle. The exceptions are so few that they are conspicuous.

Deliberate, intentional evasion and deception have been found in one case only.

The industries and establishments in which children are employed are now so well known that inspection is easy. Active work is directed to securing the attendance of children under 14.

Below will be found reports of agents :

MR. C. D. HINE,

Secretary of the State Board of Education:—

SIR—In compliance with your request I send you this report of my doings as agent of the State Board of Education for the year ending December 31st, 1887.

My investigations have been made in the following towns:

Wallingford,	Branford,	Plainfield,
Willington,	Stratford,	Griswold,
North Haven,	Trumbull,	Lisbon,
Hamden,	Milford,	Chatham,
Sprague,	New Milford,	New London,
Madison,	Durham,	East Lyme,
Guilford,	Canterbury,	Groton,
Stonington,	North Stonington,	

The principal duty of an agent is to enforce the “Child Labor Act” of 1886.

In the performance of this duty and in accordance with your directions, I have inspected the mechanical and manufacturing establishments in the foregoing towns. The industries visited and employing children under sixteen years of age, consist of thirty-seven varieties. Out of a total of one hundred and twenty-four establishments sixty-six employ children under sixteen, while fifty-eight do not. Of those employing children there are seven each of cotton cloth and woolen factories, five silver-plated ware shops, four silk factories, and three each of paper box and vegetable ivory button shops. Few of the other industries can claim two each of the remaining establishments, and a large majority can claim but a single one. Ten girls and two boys in all under thirteen were found to be employed more or less in these places. Of the twelve, five worked for their parents; one for her custodian and benefactor; and one assisted his father in a shop, not as a regular employee of the firm, but to expedite his father's work. Though these seven worked in term time, they attended

the schools while they were in session. The remaining five were regular employees in shops and factories. One of them was in a lithographing establishment; one in a cotton fabric mill; one in a visiting-card printing establishment, and two in woolen mills. Of these five, the three employed in cotton and woolen mills were working during vacations of the schools. The remaining two were employed through their employer's ignorance of the law or through their inattention to its strict terms. No two of the twelve were found in the same establishment.

It has not yet been deemed advisable to prosecute any of the twelve employers.

All those found at work were promptly dismissed at the requirement of the agent. No case of carelessness or inattention was permitted to escape reproof, and a second violation would probably necessitate a prosecution. Every one of the twelve employers were admonished and their attention directed to the strict prohibition of the statute.

Those employing their own children claimed that the law could not be intended to supersede the parental right to the child's services or to forbid the exercise of the parental privilege and duty to train children in habits of industry.

In forty-nine instances employers were requested to procure the age certificates prescribed by the law.

I have been refused admission to but one factory, and here I was admitted to one room where it was said all the young persons were at work. The grounds of this refusal were the necessity of keeping secret a process of manufacture; that I might inform competitors, if allowed to inspect all parts of the factory; that the rules of the firm excluded all persons except their own work people.

In general, employers have cheerfully permitted inspection and have patiently and candidly answered every inquiry. No instance of hiding children has come to my notice.

As to what the law relating to child labor is, some employers are still in the fog,—a peculiar haze of varying density. Another flood of leaflets in large print containing all the child employment acts might clear up the obscure points. Already some employers are accustomed to the method of inspection and inquiry and are important factors of a growing popular demand for a full enforcement of the compulsory laws. The work of the agents, supplemented by the cooperation of skilled superintendents of labor may

be relied upon to accomplish more definite results whenever their influence and authority is extended from the factory to the families of the illiterate. Uncertainty as to the ages of foreign-born children is a serious obstacle to the enforcement of the law. They and their parents are suspected of deceiving both agent and employer. If the certificates prepared in your office were demanded and obtained by the employer in all doubtful cases, most of the falsehood could be detected. As employers, however, may take their chances and not require the certificate there is frequent opportunity for deception. In nearly every case of the employment of children under thirteen born in the United States, the truth can be speedily ascertained. The birth or school records expose the facts. A residence in a particular locality in this State for three years or more diminishes the possibility of successful misrepresentation. But a family of children born in Canada, speaking a foreign language and recently settled in our State, can easily baffle inquiry.

Some means of securing the assistance of the educated and intelligent among our French Canadian population, some way of securing the adoption of uniform laws throughout New England might prove a timely and partial prevention of these abuses. A prominent manufacturer residing in Rhode Island, near the Connecticut line, suggested to me that the laws of Rhode Island and Connecticut relating to child labor should be similar. He explained the mischief possible under the existing laws where the place of employment could be readily changed from one state to the other.

GEO. A. CONANT.

BRISTOL, Jan. 2, 1888.

MR. CHARLES D. HINE,

Secretary of the State Board of Education:—

SIR—The report of my work as agent of the State Board of Education for the enforcement of the law prohibiting child labor is necessarily very brief. A full account of that work will be found in the detailed reports made to your office from time to time. I have been employed, in the main, in perfecting work begun in the preceding year, in investigating special cases, and in prosecuting offenders against the law.

My investigations the past year have served emphatically to confirm the statements of fact, and deductions therefrom, to be found in my report of a year ago.

The principle of the law meets with a growing and hearty approval; a rigid and thorough execution is justified and even demanded.

In two particulars the effect of the enactment and enforcement of the law has in the year past more than in the previous year been quite marked.

1. Employers have felt in a new and imperative fashion a necessity to know what children are in their employ, and somewhat as to their character, their personality, and their surroundings.

2. The attention, not only of employers but of the community generally, has been awakened, quickened, and confirmed as to the desirability and necessity of enforcing the regular and constant attendance upon school of children in their early years.

Now, it may be difficult to say whether this effect is due to business sagacity or quickened moral sense. In any event, the result cannot fail to have a great and increasing influence for good.

If the law is to remain as it is, I do not anticipate any considerable violation of its provisions, nor any great difficulty in its execution.

The points needing attention are these:

I. It is almost impossible to secure definite information as to the ages of many of the children for these reasons:

(1) In many instances the parents and children are so ignorant that they can with difficulty be made to understand what is wanted of them, and in any case cannot express themselves clearly or accurately on this or any other subject.

(2) In too many instances the age of the children is merely a matter of speculation with the parents: they preserve no record, and their memory on the subject is worthless.

(3) The number of those who will knowingly give false statements as to the age of their children is lamentably large.

Two suggestions may be worthy of consideration:

(1) It is well known that the most trustworthy records of births attainable are the baptismal records of the Roman Catholic church. I have always found the priests of that church very willing to coöperate and to lend any assistance in their power in these matters. Now if the coöperation of the authorities of that church could be obtained, and an enrollment of the names and ages of the children coming into a parish be made by the resident priest, a record including many children would be secured of great value.

(2) Every parent making a false statement as to age should be prosecuted, whatever the difficulty in obtaining evidence. Nothing has a more salutary effect in promoting truth-telling than convictions under the law.

II. I am convinced that employers generally intend to live up to the law, and that it is growing in favor with them every day.

In large manufactories, however, it often requires considerable vigilance to prevent children under legal age from creeping in, especially where help is in demand, and where parents are untruthful and importunate. The chief need of inspection is to call the attention of employers to the law.

If employers would register every child entering their employ, together with necessary facts about him as to age, residence, etc., the very act of registering would serve to make vigilance in these matters mechanical, and to a great extent do away with the necessity of inspection.

If the State would furnish a uniform register for this purpose, I am quite sure that it would willingly be used by employers generally, and would result in a certain and inexpensive enforcement of the law.

The law is not claimed to be perfect. Under it possibly the best results cannot be obtained.

Endless modifications have been suggested, e. g. that the employment of children of very poor parents should be permitted with the consent of the selectmen; that the employment of children in vacations should be allowed, etc.

However, the law works well, and I am convinced that the sound sense of those whose opinion is worth most would be in favor of extending rather than narrowing its provisions.

I content myself with offering two suggestions:

1. No child under, say 18 years of age, should be allowed to work on a night force in a factory.

2. In an American shop, factory, or store, it ought to be impossible to find at work a boy or girl of any age who cannot read and write.

It is, however, undoubtedly wise that in their inception both the enactment and enforcement of such regulations should be free from complications. The time, mode, and scope of modifications of, or additions to, the existing law is left where it belongs, with the legislature.

JOHN J. JENNINGS.

Mr. C. D. HINE :

Sir—I herewith present to you a report of my work, for the year 1887, as agent, of the State Board of Education, for the enforcement of the Child Labor Law.

I have visited during the year the following towns :

Stamford,	Huntington,	Winchester,
Norwalk.	Seymour,	Colebrook,
Westport,	Beacon Falls.	Litchfield,
Wilton,	Naugatuck,	Middletown,
Danbury,	Watertown,	Middlefield,
Derby.	Torrington,	Enfield.

Several of these towns have been visited two or three times during the year. My work as appears above has been for the most part in Fairfield County and through the Naugatuck Valley.

Child labor is not an important factor in the industries generally engaged in in these localities, to wit : the manufacture of wood, metal, rubber goods and Yankee notions. While in several of the towns enumerated there are either cotton, woolen or silk mills, yet in none of these places is there a demand for young help that cannot be supplied readily by resident children over 13 years of age. Thompsonville, Hartford County, may be an exception to this rule.

This being the case my duty has been, not to prosecute offenders against the law, so much as to keep the fact before manufacturers that the State is enforcing the law; and, under the direction of the State Board of Education, to enforce the law in regard to the school attendance of children between the ages of 13 and 14.

With the exception of one or two cases arising from a misapprehension of the value of a parent's certificate, I have found no children under 13 years of age employed in any establishment, after the first visit of an Agent of the State Board of Education. I have found a certain carelessness in regard to keeping on file certificates of school attendance required for children employed when between 13 and 14 years of age.

An opinion was prevalent that a strict compliance with the new law, measured the employer's responsibility. To remove such impression and to insist upon a strict compliance with the school attendance law has been the principal part of the active work of my second and third visits to the manufacturing establishments. Within the range of my observation the Child Labor

Law has had a good effect. It has quickened the humane feelings of many manufacturers and caused them to think of the effects upon society at large and upon the individual child of the free and untrammelled employment of very young children, and thus has made them friendly to its provisions and enforcement. The desire is often expressed that in this State every child may have at least so much of education, health and strength as may enable him to develop whatever powers he may have, and not be ruthlessly bound down to a life of toil and ignorance, in circumstances entirely unfavorable to improvement. There is a fund of hope extant, that a child's birth shall not forecast its life, and that all shall be given a fair chance to acquire a rudimentary education. And it is undeniable that without a child labor law and a school attendance law, there would be hundreds of cases where parents would sacrifice the health and education of their children for a mere pittance of wages. Manufacturing establishments could be found where the ability to do some work cheaply would be the only test for a child applicant.

Hundreds of children are to-day at school who, but for the law, would be shut up in factories.

If the State seeks to promote the health and education of children it has not placed the age limit too high. The tendency should be to increase the limit of age and not to lower it. There should be no exceptions permitting child labor in vacation. To commence a life of toil at 13 is soon enough, too soon for health and education. Especially valuable is a clean cut, positive enactment like the present. It is plain and not open to misunderstandings. Exceptions are simply so many hindrances to enforcement. If at the close of each vacation those manufacturers who desire to employ very young children, and to whom the privilege is valuable, were compelled to turn out the young help and supply their places with older children, there would be constant irritation. And the ill will that is now felt toward the law, if any, would be indefinitely continued and increased.

On the other hand a steadfast adherence to the law, as it stands to-day, will soon cause unquestioned obedience, and manufacturers, made dependent on children old enough to be properly employed, will adjust themselves to the new conditions.

Respectfully submitted,

H. J. CURTIS.

TEACHERS.

Summary of Statistics 1886-7.

Number of teachers in winter—male, 533 ; female,	
2,559 ; total, - - - - -	3,092
Decrease—male, 28 ; increase,—female, 82 ;	
total increase, - - - - -	54
Number of teachers in summer—male, 343 ; female,	
2,730 ; total, - - - - -	3,073
Decrease—male, 3 ; increase—female, 60 ; total	
increase, - - - - -	57
Number of teachers continued in the same school,	2,654
Increase for the year, - - - - -	172
Number of teachers who never taught before, -	378
Decrease for the year, - - - - -	41
Average wages per month of male teachers, -	\$68.82
Decrease for the year, - - - - -	1.07
Average wages per month of female teachers, -	38.50
Increase for the year, - - - - -	.53
Number of teachers whose wages was \$20 or less,	
per month—male, 12 ; female, 158 ; total,	170
Number of teachers whose wages was from \$20 to	
\$25 per month—male, 71 ; female, 358 ;	
total, - - - - -	429
Number of teachers whose wages was from \$25 to	
\$30 per month—male, 114 ; female, 392 ;	
total, - - - - -	506
Number of teachers whose wages was from \$30 to	
\$40 per month—male, 116 ; female, 774 ;	
total, - - - - -	890
Number of teachers whose wages was from \$40 to	
\$50 per month—male, 38 ; female, 757 ;	
total, - - - - -	795
Number of teachers who had attended Normal	
School, - - - - -	411
Number of teachers' meetings held during the year,	21
Number of State Certificates granted, - - -	66

Below will be found a table giving summary for years since 1866 :

Report of	No. of Teachers.		No. of Teachers.		Continuously Employed.	Beginners.	Av. Wages.		Amount paid for teachers' wages.	Per cent. of total expense for schools.	Teachers' meetings.	Examinati ⁿ s			
	Winter.		Summer.				Male.	Fem.				No. held.	No. of Candidates.	No. of Certificates.	
	Male.	Fem.	Male.	Fem.											
1866	655	1,448	113	1,959	1,074	558	\$49.00	\$22.61	\$421,137	92	70.4	0	--	--	
1867	624	1,518	115	1,995	1,185	639	45.21	23.14	482,677	50	67.3	9	--	--	
1868	617	1,560	139	2,023	1,218	637	52.05	24.01	557,193	22	57.8	12	--	--	
1869	645	1,580	150	2,057	1,453	651	56.64	26.03	609,658	05	51.3	33	--	--	
1870	679	1,639	162	2,134	1,568	608	58.74	29.16	695,539	25	54.3	12	--	--	
1871	702	1,670	185	2,141	1,407	607	63.10	31.29	785,680	04	48.4	9	--	--	
1872	699	1,721	186	2,194	1,434	595	66.56	32.69	833,759	96	55.6	6	--	--	
1873	715	1,762	198	2,240	1,508	580	67.01	34.09	888,871	89	58.1	10	--	--	
1874	711	1,810	246	2 246	1,574	618	69.03	36.05	959,229	40	64.0	11	--	--	
1875	704	1,897	258	2,303	1,690	539	71.48	36.67	1,021,714	07	60.1	1	--	--	
1876	721	1,910	272	2,324	1,768	557	70.05	37.35	1,057,242	19	67.1	0	--	--	
1877	767	1,899	321	2,317	1,780	539	67.43	37.16	1,085,290	05	70.9	6	--	--	
1878	753	1,923	305	2,354	1,904	478	64.55	36.20	1,058,682	28	60.1	5	--	--	
1879	752	1,959	349	2,329	1,947	470	61.03	36.50	1,041,040	43	68.1	5	--	--	
1880	773	1,968	377	2,344	2,003	484	57.19	35.27	1,015,882	91	73.7	5	--	--	
1881	746	2,025	392	2,354	2,119	411	56.43	35.42	1,011,729	94	71.8	4	--	--	
1882	680	2,120	349	2,432	2,144	454	60.69	35.37	1,025,322	66	69.4	10	--	--	
1883	617	2,213	316	2,503	2,183	470	63.44	35.04	1,056,268	25	68.0	9	--	--	
1884	566	2,301	307	2,532	2,325	460	67.36	36.52	1,094,580	61	60.3	9	--	--	
1885	562	2,347	307	2,596	2,347	485	69.17	37.21	1,130,863	35	63.6	17	15	153	23
1886	546	2,442	346	2,625	2,403	395	69.16	37.64	1,166,879	13	62.0	23	25	253	47
1887	561	2,477	346	2,670	2,482	419	69.89	37.97	1,188,956	04	66.3	15	20	166	42
1888	533	2,559	343	2,730	2,654	378	68.82	38.50	1,227,412	60	69.4	21	25	296	66

From the above table it appears that in the winter of 1865 31 in every 100, and in summer, 5 in every 100 teachers were men. In 1887, in winter, 13, and in summer, 11 in every 100 were men. The number of teachers increased about one-third.

In the same period, the number of female teachers employed in winter increased 1,111, while the number of male teachers decreased 122. The number of male teachers employed in summer is larger by 230, and the number of female teachers in summer by 771.

The number of male teachers in summer shows accurately the number of male teachers continuously employed. It is evident that so far as permanent situations are concerned, men are not giving place to women; while more and more districts that formerly alternated in winter and summer, employ women for the whole year. Moreover, women have entirely superseded men in primary and most grammar schools, leaving open to men only a small number of grammar schools, an insignificant number of high school positions and substantially all the positions requiring supervisory duties. In ungraded schools few men are employed, either in summer or winter.

The number continuously employed has more than doubled, and the number of beginners shows a steady decrease.

The wages of men show fluctuations from year to year, being affected by the addition or subtraction of two or three large salaries to the small aggregate.

The average wages of women has increased, but not very rapidly or largely. There are still about 900 female teachers whose salaries are \$30 a month or less, and of these, 500 receive \$25 or less. This sum is received for six to nine months service, in most cases for not more than eight months. In fine, 900 teachers receive less than \$240 per year, and out of this all expenses must be paid. It will be profitable to those who accept poor teachers, and regard poor schools as a necessity, to consider the effect of such meagre salaries. There is no encouragement for preparation nor for continuance in the business. There is no chance for a decent living, nor any stimulus except that of duty to thoroughness or improvement.

Teachers' Meetings.—Teachers' meetings have been held at the following places:

	Place.	Date.	School Officers.	Teachers.	Attendance.
E. Windsor	Broad Brook. (2)	Jan. 17.	3	18	49
		May 2.	4	21	70
	Warehouse Pt.	Feb. 14.	2	19	125
Thompson		Jan. 28.	5	28	78
Simsbury		Feb. 11.	7	33	85
Sherman		March 11.	4	15	48
New Britain		March 25.	15	320	400
Enfield, (Hazardville)		May 25.	3	31	78
Manchester		Sept. 23.	6	62	83
Chatham, (East Hampton)		Sept. 30.	11	41	198
Salisbury		Oct. 7.	7	56	111
Preston		Oct. 13.	8	44	125
Kent		Oct. 21.	15	42	145
Hampton		Oct. 26.	5	37	186
Hartland		Oct. 27.	6	30	140
Harwinton		Oct. 28.	12	41	95
Bozrah		Nov. 3.	8	35	200
Hamden, (Mt. Carmel).		Nov. 10.	3	43	78
Fairfield		Nov. 11.	10	52	90
North Stonington		Nov. 18.	11	55	138
New Haven		Dec. 9.	20	320	450

21.

In the past five years there have been held 85 teachers' meetings in 77 towns. The attendance of teachers at the 21 meetings of the past year was 1,343.

A Summer School for teachers will be opened at Niantic, the first week in July and continue two weeks.

State Examinations.—The places of Examinations held since last report, and number of candidates are given below.

Place.	Number of Candidates.	Place.	Number of Candidates.
Bridgeport.....	6	Norwich.....	13
Colchester.....	1	Putnam.....	2
Danbury.....	5	Rockville.....	8
Danielsonville.....	1	South Norwalk.....	4
Deep River.....	1	Stamford.....	10
Ellington.....	11	Stonington.....	1
Hartford.....	31	Thompsonville.....	7
Litchfield.....	4	Waterbury.....	9
Madison.....	2	Willimantic.....	5
Meriden.....	14	Winsted.....	3
Middletown.....	6		
New Britain.....	136	Total.....	296
New Canaan.....	11	Reported in three previous years.....	572
New London.....	2		868
New Milford.....	3		

Some of the above were partial examinations to supplement and complete previous trials.

The number examined in each study and the number of passes and failures were as follows:—

	Examined.	Passed.	Failed.	Percent. of Passes.
Reading.....	123	71	52	57
Writing.....	139	67	72	48
Spelling.....	142	108	34	76
Arithmetic.....	160	105	55	65
Grammar.....	153	101	52	66
Geography.....	151	79	72	52
United States History.....	138	78	60	56
Physiology.....	204	165	39	80

The number of certificates granted was sixty-six.

In order to exhibit the quality of the papers received and to indicate the subjects and parts of subjects which occasion most difficulty, the marking of a few sets of papers is given below. Each of these papers was read by three persons independently.

The questions with the number of papers written upon each set are first given; then follows a table showing the mark, between certain limits, given to each question.

Geography.—Fifty eight papers were written upon the following questions :

1. Mention four small circles distinguished by specific names. Locate each and tell by what its location is determined. State what each separates.

2. What subjects are included under

(a) Mathematical geography.

(b) Physical geography.

(c) Political geography.

(d) What connection is there between the physical and political geography of a country?

(e) Give an example of the way in which the physical geography of a country affects the condition and pursuits of its inhabitants.

3. Outline the principal physical divisions of South America and Europe.

4. (a) What is the general form of the continents? In what direction do they point? The exceptions.

(b) What is the general shape of the oceans? In what direction do they broaden?

(c) Compare the continents in respect of size; the oceans.

5. Name and locate the American islands that are situated (1) in Atlantic Ocean (2), in Pacific Ocean (3), in Carribean Sea (4), in Arctic Ocean.

6. Name and locate the peninsulas that belong (a) to North America (b), to South America.

7. What rivers of Europe flow into White Sea, Arctic Ocean, Baltic Sea, Caspian Sea, Mediterranean Sea?

8. (a) Why are countries within the tropics hotter than other parts of the world?

(b) Explain the influence which the sea exerts upon climate.

(c) How do mountain chains and plateaus affect climate?

(d) Labrador and England are about the same distance from the equator; how do you account for the difference in climate?

(e) Compare Switzerland and Italy in respect of climate.

9. Mention and locate ten of the leading commercial cities of Europe.

10. Give a brief description of the Trade Winds, including (1) Cause (2), Direction (3) Use to man.

With the following result:

QUESTION	1	2	3	4	5	6	7	8	9	10
Number marked	100	12	4	8	1	1	1	15		
"	90-100	11	9	4	5	4	8	3	4	18
"	75-90	6	18	9	20	12	27	7	12	10
"	60-75	15	14	9	23	12	11	11	18	8
"	50-60	7	5	5	2	8	2	5	5	3
"	40-50	6	5	8	2	7	5	11	14	1
"	30-40			5	4		3	6	2	1
"	10-30	1		2	3	3		5		7
Less than	10		3	8	1	8	1	9	3	2

Twenty-six wrote upon the following paper :

1. (a) What determines the position of the *tropics* and the polar circles?

(b) When are our days and nights of equal length, and why?

(c) The succession of day and night appears as if it were due to the movement of the sun across the sky; explain how it is really caused by the motion of the earth.

2. (a) Explain exactly the meaning of the terms—*Map, globe, meridian, horizon*.

(b) Explain how a traveler can learn his longitude by his watch.

(c) The parallels of latitude are represented as straight lines on the map of Connecticut; while on the map of North America, they are curved. Why is this?

(d) What is the shortest line between any two points on a globe?

3. Draw a map of the coast line from Maine to Rio Grande. Mark *straits, capes, bays, river mouths* and *sea-ports*. If you can, mark lines of latitude and longitude.

4. Name two lakes in New England, three in the remainder of the United States, two in South America, three in Asia and two in Africa.

Describe the situation of each, and name any rivers that flow through or issue from them.

5. (a) What mountains are included in the Appalachian system and in what course or courses do its chains run?

(b) How do the Rocky and Appalachian mountains compare in height and extent?

(c) Name the principal mountain chains in or adjacent to Asia. (d) Where do they lie and what are their directions?

6. Describe the Pacific Ocean—its islands, straits, surrounding countries, currents, prevailing winds.

7. What strait or channel lies between Wales and Ireland? Wales and the southern part of England? Ireland and Scotland? Borneo and Celebes? Patagonia and Terra del Fuego? Labrador and Greenland? Labrador and Newfoundland?

8. (a) What are the proportions of land and water on earth's surface?

(b) On which side of the equator does most of the land lie?

(c) Why is Australia called a continent?

(d) Name the three natural circumstances that make radical differences between continents.

9. Draw a map of Connecticut. Name and locate the counties, cities, rivers.

Mention the principal agricultural products and the principal articles manufactured.

10. (a) Bound New England. (b) Name the states in order of size. (c) Of population. (d) Of population to square mile. (e) In what occupation does each take the lead?

11. What books on Geography have you studied or read? What books of reference, if any, would you use for teaching geography to children who could read easily?

With the following result :

QUESTION.....	1	2	3	4	5	6	7	8	9	10
Number marked 100	1	1	--	--	--	--	1	--	--	--
" 90-100	2	1	2	1	1	--	3	1	4	6
" 75-90	4	11	8	11	16	7	6	14	9	7
" 60-75	11	11	6	8	7	9	10	9	6	9
" 50-60	2	2	1	3	1	5	2	--	1	2
" 40-50	3	--	5	1	--	3	2	1	4	--
" 30-40	1	--	--	1	--	--	--	--	--	--
" 20-30	--	--	--	--	--	--	--	--	--	--
" 10-20	--	--	--	--	--	--	--	--	--	--
Less than 10	2	--	4	1	1	2	2	1	2	2

Arithmetic.—Sixty-one tried the following paper:

1. Write, Eight million forty thousand, and four hundred thousand sixteen hundred thousandths, and divide it by sixteen tenths. Write the answer in words.

2. I bought a book for \$2.25. I saw by the price mark, that the retail price was \$3.00. What per cent. did the merchant throw off from the retail price?

3. A merchant received \$42 for selling goods at a commission of $2\frac{1}{2}$ per cent. What was the amount of goods sold?

4. If the earth removed in digging a ditch 8 feet wide and 4 feet deep will make a mound 100 feet long, 32 feet wide, and 16 feet high, how long must the ditch be?

5. What are the proceeds of a note for \$1,150, dated Nov. 12, at two months, discounted Dec. 13 at 6 per cent.?

6. Jan. 1, 1881, Peter Peters gave Thomas Tompkins his note on demand at 6 per cent. July 1, 1884, Peters paid \$484, the amount due, and took up the note. What was the face?

7. Bought a square lot containing 4,225 square rods. What will it cost to fence it at $16\frac{2}{3}$ cents a foot?

8. Joseph Sharp owes David Downes \$600, due April 10. Downes owes Sharp \$400, due Sept. 10. How much must Downes receive if they agree to balance their accounts June 1st?

9. How many square feet upon the surface of a cubic block that contains 46.656 cubic inches?

10. A carpenter alone can build a shop in 15 days, but with the help of his son, he can build it in ten days. In how many days can the son build it alone?

With the following result :

QUESTION.....	1	2	3	4	5	6	7	8	9	10	
Number marked	100	32	54	55	55	29	42	39	9	23	52
“ 90-100	--	--	--	1	3	--	1	3	--	--	--
“ 75-90	--	--	--	--	4	--	2	14	--	--	--
“ 60-75	1	--	--	--	1	--	--	1	--	--	--
“ 50-60	2	--	--	--	2	1	1	5	1	--	--
“ 40-50	--	--	--	1	1	--	2	2	1	--	--
“ 30-40	1	--	1	--	2	--	--	1	1	--	--
“ 20-30	1	--	1	--	3	2	3	4	8	--	--
“ 10-20	--	--	--	--	--	--	--	--	--	--	--
Less than 10	24	7	4	4	16	16	13	22	27	9	--

From this it appears that questions 1, 5, 8, and 9 presented most difficulties.

Twenty-three were examined upon the following paper :

1. (a) The product of three factors is 50 ; one of them is .005 and another is 500 ; find the third.

(b) Change .0075 of an acre to square feet.

2. N. C. Barker bought of J. H. Fish 1345 bricks at \$6.50 per M ; 75 broom handles at \$1.12½ per C ; 3575 lbs. of coal at \$6. per T. ; 3 doz. shovels at \$8.50 per dozen ; 5½ cords of wood at \$2.75 per cord. Make out and receipt bill.

3. (a) If 1870 shingle nails weigh 8½ lb., how many such nails in 2 ounces ?

(b) How many square inches on a cube whose edge is 10 inches ?

4. A, B, and C trade in company. A puts in $\frac{1}{3}$ of the capital, B $\frac{5}{12}$, and C the remainder. How shall a gain of \$2150 be divided among them ?

5. (a) Multiply 90098000 by 250000.

(b) Divide six million ten by one hundred forty thousand.

(c) What can be taught about the number 5 ?

(d) Explain and distinguish $5 \times \frac{1}{3} = ?$ $5 \div 3 = ?$ $\frac{1}{3}$ of $5 = ?$

6. A owes B \$6040 July 12, 1885. A settles with B by giving his note payable in 90 days with interest at $4\frac{1}{2}$ per cent. B gets the note discounted at bank at 6 per cent. Aug. 4, 1885 ; how much will B receive ?

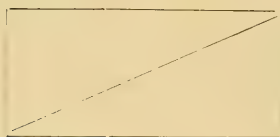
7. (a) By what per cent. is the labor of sawing firewood increased if each stick is cut into 4 parts instead of 3 ?

(b) A boy buys apples 5 for six cents and sells them at 25 per cent. profit. How many can be bought of him for 30 cents ?

8. A coal dealer bought 500 tons of coal at \$7.50 per long ton, paid \$1. per ton for freight and sold it for \$11.00 per short ton ; what per cent. did he make ?

9. James is two-thirds as old as William, and William is three times as old as John. Their combined ages are 24 years. What is the age of each ?

10.



The figure represents a rectangular farm. The dimensions are, 1984 rods—one of the longer sides and 2,434 rods—the diagonal line; how many acres does the farm contain?

With the following result:

QUESTION.....	1	2	3	4	5	6	7	8	9	10	
Number marked	100	14	10	15	22	1	2	11	10	18	4
“ 90-100	1	2	--	--	1	1	1	1	--	1	
“ 75-90	1	2	1	1	5	1	--	1	1	1	
“ 60-75	1	--	--	--	7	1	--	1	--	4	
“ 50-60	6	2	6	--	7	2	9	2	1	4	
“ 40-50	--	2	--	--	1	5	--	3	--	1	
“ 30-40	--	--	--	--	1	2	--	1	2	--	
“ 20-30	--	--	--	--	--	--	--	--	--	--	
“ 10-20	--	1	--	--	--	4	--	4	--	2	
Less than	10	4	1	--	--	5	2	--	1	6	

Questions 2, 5, 6, and 10 were most difficult. The first part of No. 7, was entirely wrong upon half the papers.

The following persons now hold State Certificates:

Abbott, Lizzie E., Waterbury.	Callahan, Kitty A., Hartford.
Adams, Bertha M., Plymouth.	Cartwright, Emma L., New Britain.
Alford, Addie L., Willimantic.	Chapman, Esther St. J., Westport.
Andrews, A. Gertrude, Hartford.	Clark, Walter E., Manchester.
Andrews, Jennie, Bethel.	Coleman, Mary E., Wethersfield.
Arms, Millie, Bristol.	Cooke, Louise P., West Winsted.
Bailey, Hannah F., Wallingford.	Covell, Jane C., Talcottville.
Baldwin, Eliza, New Canaan.	Curtiss, Ella M., Hartford.
Bancroft, Lottie L., Windsorville.	Day, Ella M., Hadlyme.
Barber, W. J., Thomaston.	Devon, Henrietta C., Highland Park.
Barnum, Mary E., South Kent.	Egan, Katharine, Waterbury.
Bell, Grace L., Newington Junction.	Ellsworth, Kate L., East Windsor.
Bidwell, Clara E., Canton Centre.	Fenn, M. Gertrude, New Britain.
Bingham, Alice E., Thomaston.	Finley, Mary A., South Manchester.
Birge, Alice E., Torrington.	Finley, Nellie E., Bolton.
Brown, Bertha C., So. Norwalk.	Fish, Emma W., Millerton, N. Y.
Buckley, Flora E., Meriden.	Fletcher, Alice, Warehouse Point.
Burke, Rosella, Rockville.	Flynn, Lizzie D., Broad Brook.
Cadwell, George A., Southington.	

- Foster, Edith C., Hartford.
 Francis, Mary R., Elmwood.
 Gallup, Algernon S., Baltic.
 Gallup, Carrie A., Baltic.
 Gladwin, Carrie L., Hartford.
 Goodenough, Mary A., Winchester.
 Guinan, Theresa V., Hartford.
 Hall, Jennie, Middletown.
 Hanna, Lizzie J., New Britain.
 Hart, Anna S., New Britain.
 Hart, Ida J., Forestville.
 Hinchliffe, Mary E., New Britain.
 Hollister, Florence J., South Glas-
 tonbury.
 Hopkins, Fred. A., Killingly.
 Hoskins, Helen F., East Windsor
 Hill.
 Howe, Ada E., Thompsonville.
 Hubbell, Hattie L., Birmingham.
 Hutchins, Annie L., Columbia.
 Isham, Caspar, Essex.
 Johnson, Celinda A., Buckland.
 Johnson, Hattie L., Willimantic.
 Kalkhof, Lillie, New Britain.
 Keenan, Katie, Norwich.
 King, Anna S., Thompsonville.
 Klinger, Bertha H., Broad Brook.
 Kyle, Annie D., Bethel.
 Lane, H. Edgar, Voluntown.
 Lillis, Ella, Sandy Hook.
 Luddington, Hattie A., New Brit-
 ain.
 Mahler, Alice C., Waterbury.
 Mead, Sarah M., Greenwich.
 Meagher, Ida A., Brookfield.
 Miller, Mary E., Bloomfield.
 Morris, Sarah L., Ellington.
 Morse, Minnie G., Northfield.
 Mott, S. Minnie, Yonkers, N. Y.
 Munger, Harriet, East River.
 Nettleton, Mary, W. Washington
 Depot.
 O'Keefe, Anastatia, Norwich.
 Page, Helen F., New Britain.
 Peck, Julia F., Groton.
 Pember, Ella M., Meriden.
 Perkins, Katherine, Winsted.
 Phippeney, Emma L., Bristol.
 Randall, Elmer E., Hazardville.
 Randall, Mary A., Bethel.
 Ray, Mabel C., Ludlow Mass.
 Raymond, Anna D., Westchester.
 Raymond, Maggie L., New Canaan.
 Richmond, Annette B., Newington.
 Ricker, Georgia A., Mystic Bridge.
 Robertson, Maria L., North Man-
 chester.
 Rockwell, Anna G., East Windsor
 Hill.
 Roemer, Ernestine W., Enfield.
 Rossberg, Louise B., New Britain.
 Sage, Emeda, Cromwell.
 Sarvent, Emily M., Andover.
 Sawyer, Lucy H., Enfield.
 Schwab, Emma N., Hartford.
 Sears, Lephe E., New Haven.
 Seymour, Carrie L., Hartford.
 Sheldon, Marian L., New Britain.
 Smith, Mary B., Litchfield.
 Smith, Mary Louise, Saugatuck.
 Snow, Abbie J., Seymour.
 Snow, Emma E., New Haven.
 Standish, Minnie S., Wethersfield.
 Stillson, Iva M., South Norwalk.
 Stocking, Ethel, Brooklyn.
 Stührmann, Minnie, Southington.
 Sturdevant, Angie A., Bridgewater.
 Thompson, Minnie A., Warehouse
 Point.
 Todd, Edith W., New Haven.
 Wadhams, Julia E., Goshen.
 Waters, Minnie J., No. Stonington.
 Watrous, Lyman J., Litchfield.
 Watson, Walter S., Warehouse Pt.
 Waugh, Jennie M., Newington.
 Webster, Chas. I., Willimantic.
 Wheeler, Sadie M., New Britain.
 Williams, Jennie M., East Hartford.
 Williams, Margaret A., Rocky Hill.
 Wingood, Fannie E., Guilford.
 Wolff, Annie F., New Britain.
 Woodruff, Lucy M., Elmwood.

Examinations for State Teachers' Certificate and for entrance to Normal School will be held in the summer at the following places :

Hartford.	Norwich.	Willimantic.
New Britain.	New London.	Putnam.
Thompsonville.	Stonington.	
	Colchester.	Winsted.
New Haven.		New Milford.
Meriden.	Bridgeport.	Litchfield.
Waterbury.	South Norwalk.	Canaan.
Derby.	Stamford.	
	Danbury.	Middletown.
		Rockville.
		Stafford Springs.

SCHOOLS.

Summary of Statistics for 1886-87.

Number of towns in the State,	-	-	-	167
Number of school districts in the State,	-	-	-	1,424
Number of public schools,	-	-	-	1,628
Decrease for the year,	-	-	-	3
Number of departments in public schools,	-	-	-	2,903
Increase for the year,	-	-	-	43
Average length of public schools,	-	-	-	180.18 days
Increase for the year,	-	-	-	.44 days
Number of schools of two departments,	-	-	-	148
" " " " three " " " "	-	-	-	43
" " " " four " " " "	-	-	-	44
" " " " five " " " "	-	-	-	18
" " " " six or more departments,	-	-	-	108
Whole number of graded schools,	-	-	-	361
Increase for the year,	-	-	-	7
Number of evening schools,	-	-	-	26

Below will be found a summary for years 1866-87, inclusive.

	Av. Length.	No. Districts.	No. Public Schools.	No. of Depart- ments.	No. of Graded Schools.	No. Evening Schools.
1866	175.00	1,623	1,662	1,991	186	
1867	164.50	1,609	1,651	2,051	187	
1868	164.50	1,590	1,645	2,066	189	
1869	163.05	1,572	1,649	2,140	203	
1870	161.75	1,570	1,647	2,213	217	
1871	163.51	1,555	1,644	2,248	217	
1872	172.41	1,535	1,630	2,290	225	
1873	173.34	1,521	1,638	2,348	232	
1874	174.18	1,502	1,648	2,405	236	
1875	176.29	1,495	1,642	2,458	260	
1876	176.26	1,506	1,650	2,499	264	
1877	178.14	1,493	1,628	2,499	270	
1878	177.52	1,487	1,629	2,530	277	
1879	178.47	1,500	1,647	2,564	286	
1880	178.60	1,498	1,638	2,571	300	
1881	179.02	1,473	1,630	2,594	308	
1882	179.98	1,471	1,634	2,627	314	
1883	179.66	1,447	1,628	2,649	313	
1884	178.77	1,447	1,634	2,735	320	26
1885	179.55	1,447	1,639	2,779	338	23
1886	179.18	1,441	1,633	2,837	339	29
1887	179.74	1,447	1,631	2,860	354	31
1888	180.18	1,424	1,628	2,903	361	26

There has been a steady advance in the number of days schools are in session. The average for the State is now 180 days, or 9 months in the year. In many towns schools are open 10 months or 40 weeks and a majority of the children of the state can attend for this longer period. In too many districts there are but 120 days or 6 months in the school year and children can not and do not make steady progress.

The decrease in the number of districts is due to the fact that two towns have within the year organized under the union system and each is counted as one district instead of divided into several as heretofore. The number of schools in these towns is not less than before the adoption of this plan of management.

By schools is meant the number of public schools in each town, and by departments the number of rooms in each school, counting each room as one department.

The number of departments has increased, while the number of schools has diminished. If gathered in considerable numbers scholars can be classified and more efficiently taught and the expense for care of buildings and fuel diminished.

EVENING SCHOOLS.

TOWN.	No. of Sessions.	Receipts.			Expenses.						Registration, Attend.				Teachers.			Schools held.		
		Received from State Appo- riation.	Town Treasury.	Other Sources.	Total.	Teachers' Wages.	Fuel and Light.	Other Objects.	Total.	No. under 14.	No. over 14.	Whole No.	Av. under 14.	Av. over 14.	No.		Average Wages.	Months.	Days.	Hours.
															Male.	Female.				
Bridgeport ..	1 00	\$27.00	\$607.37	—	\$634.37	\$634.37	\$6.10	\$8.45	\$642.82	72	72	18	1	18	1	18	\$2 per even.	Nov.-Feb.	Mon., Tu., Thurs., Fri.	7-9
Bristol	1 50	25.00	200.85	—	225.85	225.85	21.10	—	\$246.95	49	56	7	7	17	2	22	1.50 per sess'n	Dec.-Feb.	Mon., Tu., Thurs., Fri.	7:30-9
Hartford.....	2 75	185.10	1,007.83	—	1,192.93	1,314.88	\$8.23	200.00	1,514.88	484	511	11	12	4	7	—	—	Nov.-Feb.	M., Tu., W., Th., Fri.	7-9
Meriden	4 52	373.20	1,000.00	\$601.01	2,004.21	1,112.00	701.83	221.26	2,033.11	478	498	—	249	6	5	2.50 per ses.	1.50 per ses.	Nov.-Mch.	Tu., Fri.	7-9
New Britain.	4 54	172.50	437.00	—	609.50	503.30	106.00	—	609.30	216	237	9	115	2	6	1.95 per ses.	1.20 per ses.	Nov.-Feb.	M., Tu., W., Th., Fri.	7:15-9
New Haven.	7 72	276.15	*1,090.75	—	2,366.90	1,070.30	67.50	231.75	2,500.75	709	769	—	184	15	2	12.07 per ses.	1.50 per ses.	Oct.-Feb.	Mon., Tu., Thurs., Fri.	7-9
Putnam.....	1 78	150.00	427.41	—	577.41	356.00	—	221.41	577.41	225	225	—	100	6	1	1.08 per ses.	—	Nov.-Mch.	Mon., Tu., Thurs., Fri.	7-9
Waterbury ..	5 54	207.00	*715.43	—	922.43	600.63	167.80	134.00	922.43	285	285	—	138	2	3	2.50 per ses.	1.50 per ses.	Nov.-Feb.	Mon., Tu., Wed., Th.	7-9
Winchester ..	1 75	18.00	333.11	—	351.11	300.00	—	51.11	351.11	42	42	—	12	1	1	4 per sess'n	—	Nov.-Apr.	Wed., Th., Fri., Sat.	7:30-10
o Towns....	26	\$1,434.00	\$6,081.65	\$601.91	\$8,077.56	\$6,542.13	\$1,379.80	\$287.50	\$8,077.08	2,631	2,695	27	95	39	24	—	—	—	—	—

The average cost for each scholar in attendance was \$9.22.

* District Treasury.

A school of two or more departments where classification is attempted is called a graded school. These schools become more numerous each year.

The number of evening schools is the same as in 1884. On page 58 will be found a table containing the summary of the returns of these schools for the past year. They have not heretofore received State aid, nor reported to the Board. These schools should be established in all large towns. Many need them, and a growing number desire them.

There is evidence that some over 14 employed in various industries cannot read and write; there are certainly many who can not read and write with facility and hence have no desire for healthy reading. The presence of an evening school suggests to all such and to their employers, the possibility of improvement. Such schools will always have pupils who need education and are anxious to obtain it because they realize their need.

NORMAL SCHOOL.

In reports from 1884 to 1887 inclusive, your Secretary has devoted much space to the Normal School. This special recognition of the school has been prompted by a profound sense of its importance as a part of our common school system.

The school completed in May the thirty-fifth year of its existence as a school for the instruction of teachers in the "art of instructing and governing the common schools of this State." Its history has been most honorable, and what it has accomplished for its students, and through them for the children and schools of this State, has been in the past recognized and appreciated. Never were the demands for its graduates so urgent, and numerous, and never was the prospect for usefulness so bright.

The opening of the year last past, found the entering class a very large one, probably the largest in the history of the school. It numbered 112. The number connected with the school—292—was the largest since 1856. The graduates of the year numbering 62, constituted the largest class that has ever been sent out. All of them are teaching, and thus in one year the school has supplied about one-sixth of all the beginners in the State.

It has taxed the facilities of the school and the energies of the teachers to their utmost, to meet this demand for the advantages which the school proffers.

This is the place for a full recognition of the faithful and energetic work of the instructors. No institution could be served with more devotion; they have not spared themselves, and there can be no doubt that they have added through the graduates to the sum of good teaching in this State.

As has been stated, there is a constantly increasing demand for teachers from this school, and they teach with satisfaction to parents as well as with delight to children. This is an important gain, because it indicates that the training has not put them out of tune with the sentiment of intelligent people. It might be expected that persons specially trained for a particular work would have narrow notions and perhaps a period of overweening conceit and self-sufficiency. If this is true, it does not come to our knowledge, and if it exists, probably soon gives away, and the real effect of their instruction is apparent.

In some directions the facilities of the school have been enlarged to meet the calls upon it.

1. *Workshop*.—A workshop fully equipped with benches, tools and power has been finished, and is now in daily use. It is not pretended that our students are necessarily introduced to what is known as manual training. This is not the primary object. The object is to enable students to furnish for themselves, at small expense, the apparatus which can be used for teaching elementary science in their future schools. This end is fully accomplished, and none go out without an equipment which is ample at the beginning of their work. They also possess the ability to enlarge and perfect this equipment if occasion demands. Teachers thus supplied are not dependant upon the parsimony or spasmodic liberality of unenlightened districts. They have the means of objective teaching no matter where they go. The construction of such apparatus is stimulating to teachers, and the possession of it carries interest and delight as well as useful knowledge to our common schools.

The scholars of the model schools are also here instructed in making such articles as will guide them to the use of tools.

There is not yet upon paper nor is it pretended that we possess a complete course of manual training, although we do as much, and go as far, and work with as much system as many of the so-called manual training schools. This work is still really experimental, and the results are carefully noted, but no one can yet say what place this work will occupy in a system of common schools. Other lines than carpentry are to be undertaken, and such suggestions as open-minded observation can contribute, will from time to time be made to this question. It is not yet proved, nor is there any considerable data to show that manual training in all common schools is feasible, nor if feasible, desirable. But the evidence that it is both desirable and feasible is constantly accumulating. It is believed that the mental training from this kind of work is not small, and results in good habits, viz: those of exactness and care, and the power to do something useful. This, if accomplished, would be no small result. It remains to be shown how this kind of training can be introduced into all schools, graded and ungraded, in city and country. This is the problem which is to be solved and to this our careful and earnest attention is directed. It is believed that the first step is to train teachers who can give instruction in this line.

If the time given to some of the present studies can be shortened, and it is well understood that this is both possible and desirable, this side of education may be developed, and valuable service be rendered to the State. The graduates of the school are prepared whenever they are requested to undertake this kind of work, and to give instruction to children in the first steps of what is now called manual training.

2. *Gymnasium*.—A gymnasium has been finished and an instructor in physical training been employed. The end here is not to furnish amusement, nor to give an accomplishment, but,

1. That the graduates may have sound bodies, and so be able to teach school better. There is no more pitiable sight than a sick teacher, except a school under the charge of such a teacher. The relation of teacher to scholar implies,

1. That the children have confidence in the teacher, and,
2. That the teacher is worthy of confidence.

No teacher with a weak body and resulting infirmities of mind can long retain the confidence of children. The whole foundation of the relation of scholar and teacher is upturned, and children are obliged to look upon and experience the results of physical weakness. It is urged against teachers that as they advance in years, under their exhaustive duties, they lose their freshness and vigor of body, and the elasticity of mind which commend them to the young. Moreover, if there is weakness the teacher cannot improve; attention is forced from regular study and observation to anxiety for one's self, and the result if not a morbid self-consciousness, is a stationary condition which cannot look beyond a very narrow horizon. This view is not a new or original one, and is the one long prevalent in other countries than our own. It is believed that it is the true one, and while it cannot be asserted that perfection of body, any more than perfection of mind is to be the condition of excelling in the teachers' calling, it is true that something can be done by the inculcation of right ideas about health.

To the end that the work may not be aimless, but accomplish a definite purpose, each student is given daily work intended to give strength, where strength is needed. The benefits of this course are soon manifest not only to the instructor who guides the class, but to the scholars themselves, in better sleep, clearer minds, and more power of application. It is believed that as a result teachers better balanced mentally, because physically vigorous, will enter our public schools.

3. *Ventilation and Heating.*—The ventilation of the building has been improved and rendered nearly perfect. There is at the same time heat and pure air, a combination not hitherto secured.

In the repairs, with the changes mentioned, have been expended the \$7000 which the Legislature of 1886 generously voted. These additions have not only made the building more convenient, but the building is in every direction better adapted to the purpose of the school.

With all these advantages and encouragements, there have been some obstructions.

1. *Lack of Model Schools*—There has been a constantly apparent and growing need of more model schools. This need is instant and imperative. It has been strenuously set before the Board in previous reports. It is not now less than before but immeasurably greater, and it should be fully known, that the school is in a measure failing because convenient schools for this purpose are not at hand. Without entering upon the endeavors made to secure such schools, or to expose the compound ignorance,—ignorance that is ignorant that it is ignorant,—which stands in the way, it is proper to suggest that the time has come when another normal school must be established in a locality where model schools are welcome, if the State is to supply an adequate number of well-trained teachers.

It is premised that the present school cannot train more than it is now training. The number of beginners in the State each year is about 400, which means that 11 per cent. of the whole number of teachers is renewed annually.

The present school, as has been said, supplies about one-sixth of this number. It is possible that other training schools furnish another sixth. It follows that two thirds of those who enter upon this work have no special qualification, and get their training after they begin. If then, one-third are supplied, it would follow that another normal school doing an equal service for the State, would not crowd the ranks of teachers.

In addition to the consideration thus adduced, there is the more important one suggested above, that the teachers must be trained for their calling in practice schools. Such training cannot be given to such numbers as now assemble at our only school unless facilities are enlarged. At present, perhaps at no time in the future can these facilities be enlarged.

2. *Lack of preparation on the part of pupils*.—Another difficulty which besets the school is a lack of preparation on the part of the students. These students come largely from the common schools. Their education is elementary and generally defective. Even in the common school branches they have had no thorough instruction and they have had no discipline which prepares them at once to receive any advanced

instruction. Moreover, they have finished their education in the common schools because such schools could take them no farther, at twelve or thirteen years of age and cannot be admitted to the Normal School until they are sixteen. Some attend meantime private schools or high schools, and thus secure a little more. Most, however, are cut off by reason of living in the country from any additional advantages. They often begin to teach and thus impose their deficiencies upon others; they acquire bad habits of thought and add but little to their stock of knowledge. When they are received it is almost impossible at once to connect the common school studies with the work of future teaching, a connection which it is the special function of the Normal School to make.

An attempt to raise the standard so as to compel large preparation before admittance, does not seem at present to be wise. There are numbers situated as has been stated, who have the capacity and purpose to make faithful and efficient teachers, and by as many as we cut off by any paring process before entering, by so many do we diminish the number to whom we desire, and to whom it is the purpose of the State to extend the privileges of the school. It is better far to give an opportunity to those who have had a larger education to finish the course in a shorter time, thus admitting all, the capable who have not had advantages as well as the capable who have had advantages and so arrange the course that the advantages of the more favored shall enable them to finish in the shorter time. This is much better than to reject and discourage those, who while anxious to enter the school, and the calling of teachers have been deprived of adequate preparation by the misfortune of living in localities deprived of good common schools.

3. *Relation of academic and professional work.*—When the students have thus entered, however, the instructors are confronted with the perplexing question of the relation of academic to professional work. It is deceptive to call that professional, which is not professional, or to call a high school with a normal attachment, a professional school. There is a moral objection to putting on paper courses of study or issuing prospectuses which imply more than can be done, and there is

decided objection to persuading ourselves that names stand for the real work of the Normal School.

It is not necessary to discuss what would be genuine professional work for teachers. Our Normal School has observed two things, and has not lost sight of them, and can confidently affirm that they guide in all work of the school, viz :

(a.) That common school subjects should be reviewed and studied in their relation to the teacher's work and to children.

(b.) A few subjects well presented in the relations indicated are better than a smattering of many subjects.

With this in view, academic instruction is, not entirely dismissed but differs essentially from academic instruction in a high school, and in result differs as widely from it, as the purpose of one differs from the purpose of another. They are not to be confounded, nor are the functions of either to be depreciated.

In carrying out the plan above indicated it has been insisted that each teacher connected with the Normal School give instruction to the classes of children in the model schools as well as to the students in the Normal School. Thus every subject is presented by a skillful teacher to every class of minds. The primary as well as the high school phases are presented, the subject is taught in relation to its value to children, and can be treated in its relation to other parts of the same subject, to other subjects, to a course of study and to the logical order in which each should be taught. It will be noted that here is a very wide departure from the practice of high schools. Specialists are presenting the same subject to different classes of minds; not only are they themselves compelled to know the subject thoroughly, but they must know how to present it skillfully. A facility and variety of teaching is required. The pupils of the Normal School not only observe such teaching, and study it, but themselves teach the different subjects under the eye of these specialists. As has been said there is academic work, but it is an entirely different mode of work, and requires an infinitely greater grasp of the subject than ordinary academic work. The pupils become not only scholars, but they see the bearing of the subject upon the special work of teaching.

In connection with the common school and other branches there can be,

1. Treatment of each subject historically.
2. A study of the educational function of each subject, so that devices and mechanical work may be avoided.
3. A study of logic in connection with Grammar.

To accomplish this the Normal School does not need a larger force of instructors, but it needs training schools, that its students may pursue these branches with a view to their future calling.

4. *Failure to complete the course.*—Another difficulty is that a majority of the students who enter do not complete the course. From the four classes in the school at the beginning of the year in September, 1886, 100 besides the graduating classes left at or before the close of the year. The course should be so arranged that those who receive but a fraction of normal school training should attain a knowledge of what it means and if possible retain some connection with the school.

Training Department.—The training department is a distinctive feature of the school and the course extends over a full year. The special work consists, as is indicated on pages 361, 362 of this Report, of

1. Model lessons by each of the faculty in the model schools with children.
2. Observation by the students of these lessons, and the regular lessons in the model schools.
3. Special preparation for practice in the model schools.
4. Trial lessons by pupils, and preparation of work, etc.
5. Teaching by the students in the model schools.
6. Criticism by teachers and discussion by the pupils of the teaching in the model schools.

This department has amply justified the anticipations of those who organized and have from time to time enlarged it. No normal school has any right to exist without one. There is reason to believe that this department can be so broadened that students from higher institutions of learning shall be attracted to it.

While the education given in the Normal School must have special reference to future teaching, and the subjects, though

not the treatment of these subjects must be elementary, a more extended course can be added with advantage, and students encouraged to remain and pursue this course. This does not mean that college branches should be engrafted upon the course, but that modern languages, other departments of science like Botany, Astronomy, Zoology, a larger course in History and Literature, courses in Music and Art, and physical training, should be pursued in their relation to teaching. There should be for every teacher an extensive course in the history of education and an acquaintance with physical and mental science.

It has been a main consideration not to divorce the Normal School from ungraded country schools. There has been a looking forward to the time when country schools will continue as many weeks in the year and pay as good wages, and be as progressive and interesting as the schools of towns. Any course which recognizes the necessity for deterioration in these schools implies that the country is to lose in intelligence, by the loss of the education of its children, and that these children are to grow up with a smaller mental equipment than those in the cities. This is not the purpose of the law, although the law unwisely permits such inequality. The Normal School cannot afford to promote any such inequality by removing itself from connection with and knowledge of these schools. It has a duty upon it of demonstrating that country schools even under disadvantages can be good schools, and that good teaching raises them to the highest rank.

The object of the Normal School is to give every one who desires to exercise the teacher's calling the very best instruction and training preliminary to that calling. This is not absolute security for exercising the calling well, but it is the best security. It is a thousand times better than any town examination test, on which in this State we rely with such ignorant confidence, leaning with our whole weight.

Below will be found the Report of Mr. C. F. Carroll, principal of the school.

MR. C. D. HINE,

Secretary of the State Board of Education :—

SIR—I respectfully submit my fifth annual report of the State Normal and Training School.

The number of pupils enrolled from each county was as follows:

Hartford County	131
New Haven County	49
New London County	18
Fairfield County	30
Windham County	5
Litchfield County	23
Middlesex County	17
Tolland County	8
From other states	11
Total	292

The enrollment by towns was as follows :

Andover, 1.	Hartland, 1.	Redding, 3.
Bethel, 2.	Harwinton, 2.	Ridgefield, 1.
Bloomfield, 2.	Hebron, 2.	Rocky Hill, 3.
Bridgeport, 3.	Huntington, 2.	Salisbury, 1.
Bristol, 6.	Kent, 3.	Saybrook, 1.
Brookfield, 1.	Killingly, 3.	Seymour, 2.
Canaan, 2.	Ledyard, 1.	Sharon, 1.
Canterbury, 1.	Litchfield, 2.	Simsbury, 1.
Chaplin, 1.	Lyme, 4.	Southbury, 1.
Chester, 1.	Madison, 4.	Southington, 1.
Colchester, 2.	Manchester, 11.	South Windsor, 3.
Columbia, 1.	Meriden, 12.	Sprague, 1.
Coventry, 2.	Middlefield, 1.	Stamford, 1.
Cromwell, 2.	Middletown, 1.	Stonington, 4.
Danbury, 1.	Morris, 1.	Stratford, 2.
Darien, 1.	New Britain, 34.	Suffield, 4.
Derby, 4.	New Canaan, 1.	Torrington, 2.
Durham, 2.	New Hartford, 3.	Trumbull, 1.
East Hartford, 2.	New Haven, 3, (Westville d.)	Vernon, 1.
East Windsor, 2.	New Haven, 2.	Wallingford, 8.
Ellington, 2.	Newington, 4.	Washington, 1.
Enfield, 5.	New London, 2.	Waterbury, 8.
Essex, 3.	Newtown, 1.	Westbrook, 1.
Farmington, 2.	North Branford, 2.	West Hartford, 1.
Franklin, 2.	North Haven, 1.	Westport, 1.
Glastonbury, 1.	Norwalk, 8.	Wethersfield, 4.
Goshen, 1.	Norwich, 2.	Winchester, 2.
Greenwich, 1.	Plainville, 3.	Windsor, 3.
Hamden, 1.	Plymouth, 2.	Windsor Locks, 7.
Hartford, 31.	Portland, 4.	Total, 89 Towns.

The enrollment for the past five years has been :

1883—162.	1886—266.
1884—216.	1887—292.
1885—260.	

The attendance in the fall term for five years has been :

1883—107.	1886—170.
1884—164.	1887—164.
1885—166.	

The previous training of pupils is indicated by the following :

Graduates of high schools.....	84
In high schools from one to three years	45
In academies or private schools.....	48
From district schools	112
	<hr/>
	289

Graduates of high schools, attending Normal School :

1883—6.	1886—40.
1884—19.	1887—84.
1885—15.	

Number graduated since 1883 has been :

	Winter.	Summer.	Total.
1884.....	14	16	30
1885.....	11	25	36
1886.....	19	24	43
1887.....	17	43	60
			<hr/>
			169

The catalogue summary of attendance for the year ending Nov. 1, is given :

NORMAL AND TRAINING DEPARTMENT.

Class graduated Jan., 1887	15
Class graduated June, 1887.....	39
Senior Class.....	19
Junior Class.....	54
Middle Class	41
Entering Class.....	112
Special course in science.....	1
Special course in gymnastics	1
	<hr/>
	282

KINDERGARTEN TRAINING DEPARTMENT.

Class graduated Jan., 1887.....	2
Class graduated June, 1887.....	4
Senior Class.....	5
Entering Class.....	6
	<hr/>
	17

PRIMARY TRAINING.

Graduated June, 1887	1
	<hr/>
	300
Deducted for names counted twice	8
	<hr/>
Total	292

The above statements show an increase of twenty-three in the number enrolled, and an increase over last year of seventeen in the number of graduates.

It was predicted, in the report of last year, that the attendance would diminish, because a larger number complete the course in less than two years. It will be observed that the number of graduates has increased about twenty-five per cent., while the number in attendance has remained nearly stationary.

The number of graduates has increased rapidly and steadily, and by more than one hundred per cent. in four years.

It is a serious undertaking to train a single pupil to teach successfully, her first school. The difficulty is increased when the obstructive policy of those among whom it is our lot to be cast compels us to carry on one half of our technical training outside the town in which the Normal School is situated.

The general plan of conducting classes in the academical department, or during the first year, differs little, so far as class organization is concerned, from that followed in high schools, and large numbers can be taught. All this is changed in the training school. Not more than one pupil can work to advantage in one room, at the same time. If there are more than thirty-five pupils in a class a high standard cannot be maintained.

If every pupil can have an extended term of apprenticeship, few failures by our graduates will ever be reported. A single failure in management has sometimes widely injured the good name of the school. No effort should be spared to increase *confidence* in the training.

The practice department has gained in favor. Graduates from the *training school* readily find situations. The ability to teach and to govern is the commodity in demand. It is hoped that the questions concerning the advantages of training for teaching, settled long ago, everywhere save in New England, may not again be called in question in Connecticut.

No effort should be spared to preserve the efficiency of this central feature. Its continued vigor is vital to all, the success of

the school, both in training to teach, and in affording suggestion to the hundreds of teachers that visit the school.

But assuming that this department is doing its work with undiminished thoroughness, we have but a slender basis for a large success. It is not enough that the graduates are hired without delay, or that people are curious or even interested to discover some new thing. In the first place, the institution should attract to itself those who can successfully illustrate the practice and the theory of good teaching, working intelligently and guided by principles, rather than imitating flimsy surface methods. Many of the best teachers of the State were trained only in the rural schools; yet the great increase in the number of well-trained students who are taking the course is a source of the highest satisfaction to all interested in education.

Again the school should aim to give instruction in such specialties as bear directly upon the success of a well-organized district school. Here, as before, more is undertaken by the Board of Education than is called for by the public. Yet the public is quickly responsive to every additional facility afforded to increase the usefulness of future teachers. Many theories of training, hitherto successfully illustrated in a modest way, and favorably commented upon by teachers generally, have been placed before the public at the Normal School during the last few years. This end has been kept steadily in view from the first. No one asked for a practice department, for a kindergarten, for a department of physical training, or an industrial or art department. Yet all these features have been added with much additional care, anxiety, and labor on the part of the Board and the officers in their employ. Some of the supplementary departments are in good working condition, and some of them cannot be said to be fully organized. But they should be carried forward as rapidly as possible. The technical, the special, is the loud call everywhere. An art if not a trade; an ability to construct, to represent, to reproduce, all this is demanded by intelligent American parents. This newly-discovered, long repressed element, must have a place in education, and the Normal School should promptly lead the way, by offering certain special lines of training.

The Kindergarten is a fully equipped, well-organized industrial department. It affords a thorough training to the limited number who can be received in the training class. The powers of

attention and discrimination are well developed, and every child who enjoys its privileges has begun to be an artist. Moreover, his powers of concentration and his insight have been so cultivated, and his information has been so increased, that his future intellectual development will be immeasurably hastened. The proof of these statements is found in the great contrast shown in the early grades of our own schools, between those who have and those who have not received kindergarten instruction.

Physical Culture has been prominently and almost abruptly brought into notice within the last five years. Its claim to a place in every higher institution is already recognized. The law of this State compels attention to physiology, and public sentiment follows quickly with the demand that the body shall be cared for and exercised, that the long term of confinement in school shall not prove disastrous alike to health and morals. Physical exercises are as much a part of the programme of the model school-rooms as arithmetic or reading. A systematic course of physical training is obligatory upon every student of the Normal School. A regular instructor is employed and classes give one period every day to gymnasium work.

Students will here learn the value of strengthening and caring for the body, which is so often disfigured and despised by American women, and they will, thereby, know better how to teach others to care for health. This department should afford a complete training and award a certificate, that the influence of the school may not stop with benefiting the few that are in attendance.

Every grade of schools, and almost every subject taught has its appropriate occupation. Modeling, coloring, molding, drawing, writing, measuring, weighing, representation, and reproduction of every kind, assist in the apprehension of almost every subject in the school curriculum.

Successful teachers unconsciously employ the idea of reproduction or representation in tangible form, of all ideas presented to pupils.

Teachers introduce a long list of occupations and busy work. Many merely imitate what others do in this respect; a few employ this natural method through intuition, or from an intelligent apprehension of the principle involved; but all, for one reason or another, are trying to use industrial elements in the school-room. These features are not introduced *because* of their intrinsic

sic worth, but because the intellect must have the assistance of things at every point.

Students of the Normal School are introduced to a great variety of elementary forms of technical work. Kindergarten occupations, molding, modeling, the use of tools, writing, drawing, coloring, gymnastics, and experimental work in physiology, chemistry, and physics, are the technical features in which instruction is at present given. It is intended that this instruction shall be thorough as far as it goes. The elements are dealt with and fairly mastered. The favorable influence of the presence of these occupations can be demonstrated in every model school-room. Restraint is reduced to a minimum. Children are self-reliant, and cheerful, and learn to work. More is accomplished, and the progress in all other subjects is more rapid, since these occupations either contribute directly to a better comprehension of every topic presented, or improve the general conditions under which pupils work.

If industrial training stopped here, it might be claimed that these features had revolutionized all methods of teaching, and gone far in redeeming the school from the sepulchral and immoral influence that have enveloped it as a place of mere restraint.

But the school deserves criticism, if it is satisfied to deal with the rudiments of industrial training. It should send out experts to teach every mechanical art worth introducing here. A vigorous and liberal policy in building up these technical schools would accomplish almost any desired improvement in the sentiment of the entire State.

Complete post-graduate or independent courses should be offered in singing; industrial art; physical training; coloring and modeling; drawing, carpentry, and natural science. To accomplish this, a new building would be indispensable.

But Connecticut supports no art school, and an art department of the Normal School liberally equipped would imply a modest outlay for a State that leads the nation in many of its numberless fine art productions. Our present arrangements may afford suggestions to all who know the school but can never shape rapidly or surely the taste and practice of a State.

The workshop occupies the southern side of the third floor of the main building—is 83 feet by 22 feet by 12 feet, and was completed in May of the present year. It is furnished with benches,

tools, turning lathe, circular saw, and supplied with power. The Junior and Senior classes spend one period each day in constructing such apparatus as may be needed in teaching elementary science. The labor here done furnishes the best possible training in discrimination, proportion, and the use and value of materials.

Those here trained will henceforth be able to describe such apparatus as they cannot themselves construct. They will have more ingenuity, and can employ this constructive power in numberless useful ways in the school-room.

The workshop gives an hour of healthful recreation, and considered from the side of health alone would prove a valuable investment for any school. Neither the exercises in the workshop, nor in the gymnasium, nor in any other of the technical lines mentioned, are optional.

A complete course in many technical arts is certainly desirable, and ought to have a prominent place ; but it is to be earnestly hoped that all who are to be trained to teach in the common schools may receive the quickening influence of such elementary instruction if nothing more.

The boys from the two upper rooms of the model schools spend two hours a week in the use of tools. No doubt exists as to the benefit to be derived by these pupils from manual work, though it is too early to speak concerning the result of this so-called *experiment*.

Every department of the school has increased in numbers. This pressure, with the addition of new lines of work already undertaken, has crowded the building and compelled the occupation of the third story, which was never intended for use.

The Kindergarten has grown to a membership of eighty. It has become absolutely necessary to open a new room or dismiss a large number of pupils; who have attended the Kindergarten, with the understanding that they should be admitted to the primary school, in due time. This school has been organized in an office room in the basement.

There are not sufficient rooms for carrying on recitations, and teachers are working at a disadvantage. It is hoped that these facts will receive the early and earnest attention of the Board.

We can readily discover some improvement in the conditions under which the school is doing its work. A favorable public sentiment, the generous support of many influential teachers and school officers, the general success of graduates, the increasing

number of well-trained students entering the profession, and the liberality of the State, all furnish ground of encouragement.

But it must be said that the low standard of qualification for teaching required in most towns, the demoralizing influence of a divided and often incompetent management, react upon the Normal School. It is in spite of low ideals, and a pernicious system of employing teachers, that the Normal School makes its way to public favor. A law backed by public sentiment, compelling all teachers to be trained for their important work, would put teaching on a par with other professions.

Another obstacle is found in the fact that students are in haste to graduate, and many of the most promising who complete the course in less than the regular time omit such optional parts of the work as would be of the highest benefit to them. I refer to the subject of Natural Science, which many of them have nominally studied before entering the school.

Pupils should be trained till they can do a certain work with a good degree of success. The *promise* of success is all we can at present wait for, and forty or fifty must now be dismissed at one time. The practice system should be enlarged and so arranged that the training could be indefinitely extended and rigidly carried out.

It is said that teachers of less training would satisfy the demands for a country school. Such a sentiment should not prevail. There should be one Normal School where the most complete preparation can be afforded and where a thorough professional standard can be insisted upon.

Respectfully submitted,

C. F. CARROLL, *Principal*.

ARBOR DAY.

The Legislature of 1886 passed the following act :

The Governor shall annually, in the spring, designate by official proclamation an Arbor Day, to be observed in the schools and for economic tree-planting.

In compliance with the above act, the Governor issued the following proclamation :

IN COMPLIANCE with an Act passed by the last General Assembly, I hereby designate Friday, the Twenty-ninth of April, to be observed throughout the Commonwealth as Arbor Day;

and I recommend that the teachers in all the Schools of the State so order their instructions and exercises upon that day that every child may learn something of the value, or at least of the beauty, of tree culture, and may take a personal interest in the planting of some tree or shrub in the school grounds or in the adjacent commons.

I earnestly ask every farmer, and especially every Agricultural Association, so to celebrate the day that the public appreciation of the importance of forestry may be increased. I trust that on this, the first of Arbor Days in Connecticut, the standard of celebration may be set so high as to ensure a proper observance in the years to come, so that at the close of a single generation every village street and country road may be lined with trees which shall protect and beautify, and every hillside now barren may be covered by a forest growth which shall add wealth to the State, salubrity to its climate, and fertility to all the land within its borders.

PHINEAS C. LOUNSBURY.

A copy of this proclamation, together with a pamphlet containing suggestions for public exercises and directions as to tree-planting, was sent to every school district in the State.

The following order of exercises was suggested :

1. Reading the Governor's Proclamation.
2. A short account of Arbor Day,—its purpose.
3. A short account of the school,—the school-house and grounds.
4. The needs of the school-house and grounds.
5. Shade trees,—the varieties,—their culture and value.
6. Trees of the neighborhood with collections.
7. Appropriate essays and selections.
8. Short addresses by school officers and others.
9. Planting the trees,—allowing each child to take a part ; naming trees, etc.
10. Singing " My Country 'tis of thee."

There was also sent to each committee the following circular and blank.

OFFICE OF STATE BOARD OF EDUCATION.

HARTFORD, April 20, 1887.

Dear Sir :

Will you kindly fill out and return the enclosed blank, giving account of celebration of Arbor Day in your district ? If there was no observance of the day, for any cause, please so state.

Secretary.

REPORT OF ARBOR DAY CELEBRATION.

1. Town,
2. District,
3. No. of Trees Planted,

[If possible, give number of each kind of Tree, and mention Shrubs, etc.]

4. Remarks and Suggestions,

District Committee.

To this circular 412 answers were received. The following table gives a summary of these answers.

HARTFORD COUNTY.

		Number of Districts which reported.	Any Exercises ?	Number of Trees and Shrubs.	Apple.	Ash.	Beech.	Birch.	Boxwood.	Butternut.	Cedar.	Cherry.	Chestnut.	Dogwood.	Elm.	Fir.	Hackmatack.	Hemlock.	Horse Chestnut.	Juniper.	Linden.	Locust.	Maple.	Mulberry.	Oak.	Peach.	Pear.	Pine.	Plum.	Poplar.	Spruce.	Tamarack.	Tulip.	Walnut.	Willow.	Japanese Ivy.	Shrubs.	Vines.
Hartford.	7	Yes	69	18	4	1	11							1	15							30	1														1	
Avon	2	Yes	18	1											1								13															
Berlin	9	Yes	217	80	15						1				20			1				125																
Bloomfield.	2	No	6												3							3																
Bristol	6	Yes	115	3	1						3	2			10							1	53															
Burlington.	4	Yes	38								1												21	1														
Canton	3	Yes	5																				2															
East Granby	4	Yes	4												3							1																
East Hartford	1	No													2																							
East Windsor	4	Yes	31														1						3			3	7		1								16	
Enfield	5	Yes	43	1											11								24						3									
Farmington	2	Yes	6																				6															
Glastonbury	7	Yes	57	1												9				1			28								2							
Granby	1	No																					14															
Hartland	1	No	23	1							1												14															
Manchester																																						
Marlborough	2	Yes	15	1							1												5		1													4
New Britain	2	Yes	74												37			1					37															
Newington	1	Yes	14												4			1					5															
Plainville	1	Yes	164	21	1		2		1	7	19				28	1		1					31		4	3	2	19	20	1								
Rocky Hill	2	Yes	28	5											1							1	7															
Simsbury	3	Yes	12												2								5															
Southington	8	Yes	53	6											10								33															
South Windsor	3	Yes	31												8		1						9		1													
Suffield	2	Yes	8									1			3								2															
West Hartford	1	Yes	213												10								71															
Wethersfield	1	Yes	1																				1															
Windsor	5	Yes	45	6		1						6											14		4				5	1		4						
Windsor Locks.	1	Yes	1																																			
90			1291	42	91	17	3	11	1	14	27	1	1	180	2	1	8	1	1	1	1	2	556	1	12	6	13	46	29	1	8	4	3	8	3	1	279	32

NEW HAVEN COUNTY.

	Number of Districts which reported.	Any Exercises?	Number of Trees and Shrubs.	Ash.	Basswood.	Beech.	Boxwood.	Cedar.	Cherry.	Dogwood.	Elm.	Hemlock.	Horse Chestnut.	Locust.	Maple.	Oak.	Pear.	Pine.	Spruce.	Walnut.	Japanese Ivy.	Shrubs.	Vines.
New Haven City	---	No	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beacon Falls	2	Yes	5	---	---	---	---	2	---	---	---	---	---	---	1	2	---	---	---	---	---	---	---
Bethany	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Branford	2	No	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cheshire	4	Yes	23	1	---	---	---	---	---	---	---	---	---	---	12	---	---	---	---	---	---	10	---
Derby	3	Yes	39	---	---	---	---	---	---	---	5	---	---	---	---	---	---	---	---	22	25	2	---
East Haven	1	Yes	35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Guilford	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hamden	3	Yes	47	---	---	2	---	---	1	---	5	---	---	---	16	---	3	---	---	---	---	---	---
Madison	6	Yes	124	6	---	3	---	---	1	1	32	---	---	---	30	2	4	6	---	---	---	2	---
Meriden	4	Yes	3	---	---	---	---	---	---	---	---	---	---	---	3	---	---	---	---	---	---	---	---
Middlebury	1	Yes	6	---	---	---	---	---	---	---	---	---	---	---	6	---	---	---	---	---	---	9	---
Milford	1	No	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Naugatuck	1	Yes	2	---	---	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	---	2	---
North Branford	1	Yes	4	1	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---	---	3	1	---
North Haven	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Orange	2	Yes	11	---	---	---	---	---	---	---	6	---	---	---	5	---	---	---	---	---	---	---	---
Oxford	1	Yes	27	---	---	---	---	---	---	12	---	---	---	---	15	---	---	---	---	---	---	---	---
Prospect	1	Yes	4	---	---	---	---	---	---	3	---	---	---	---	1	---	---	---	---	---	---	---	---
Seymour	1	Yes	115	---	---	---	27	---	---	12	4	---	---	---	11	---	32	---	---	---	64	15	---
Southbury	5	Yes	18	---	1	---	---	---	---	---	---	---	---	3	7	---	---	---	---	---	---	---	---
Wallingford	4	Yes	7	1	---	---	---	5	---	---	---	1	---	---	1	---	3	---	---	---	---	---	---
Waterbury	5	Yes	26	---	---	---	---	---	---	3	---	---	---	---	17	---	---	6	---	---	---	---	---
Wolcott	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Woodbridge	3	Yes	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	51	---	568	8	1	1	5	2	32	2	18	4	1	3	128	4	7	41	6	1	22	113	20

NEW LONDON COUNTY.

	Number of Districts which reported.	Any Exercises.	Number of Trees and Shrubs.	Ash.	Butternut.	Cedar.	Chestnut.	Cork.	Dogwood.	Elm.	Hornbeam.	Horse Chestnut.	Linden.	Maple.	Oak.	Pepperidge.	Pine.	Tough-horn.	Tulip.	Walnut.	Willow.	Japanese Ivy.	Shrubs.
New London	2	Yes	3	---	---	---	---	---	---	---	---	1	---	2	---	---	---	---	---	---	---	---	---
Norwich	6	Yes	45	---	---	---	---	---	---	---	---	---	---	33	---	---	---	---	---	---	---	---	4
Bozrah	1	Yes	3	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	2
Colchester	2	Yes	81	2	---	---	---	---	---	7	1	---	---	39	3	15	---	---	---	---	---	---	3
East Lyme	1	Yes	4	1	---	---	---	---	---	---	---	---	---	3	---	---	---	---	---	---	---	---	---
Franklin	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Griswold	6	Yes	19	---	---	---	---	---	1	16	---	---	---	2	---	---	---	---	---	---	---	---	---
Groton	3	Yes	13	---	---	---	---	---	---	6	---	---	---	7	---	---	---	---	---	---	---	---	---
Lebanon	4	Yes	65	1	---	1	---	---	---	1	---	---	---	43	---	4	---	---	---	---	---	---	9
Ledyard	1	Yes	6	---	---	---	---	---	---	---	---	---	---	3	---	---	---	---	---	---	---	---	---
Lisbon	2	Yes	4	---	---	---	---	---	---	2	---	---	---	2	---	---	---	---	---	---	---	---	---
Lyme	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Montville	2	No	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
North Stonington	1	Yes	33	6	---	---	---	---	---	1	---	---	---	25	---	---	---	---	---	---	---	---	2
Old Lyme	1	Yes	26	---	---	---	---	---	---	1	---	---	---	6	---	---	---	---	---	---	---	---	---
Preston	1	Yes	5	---	---	---	---	---	---	2	---	---	---	2	---	---	---	---	---	---	---	---	---
Salem	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sprague	1	Yes	2	---	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---	---
Stonington	3	Yes	16	---	---	---	---	---	---	---	---	---	---	10	2	---	---	---	---	1	2	---	27
Voluntown	1	Yes	9	---	---	---	---	---	---	---	---	---	---	5	---	---	---	---	---	4	---	---	---
Waterford	1	Yes	13	---	2	---	---	---	---	---	---	---	---	2	---	---	---	---	---	---	---	---	7
	44	---	342	4	6	1	1	1	1	40	1	1	1	184	8	3	19	4	2	6	18	3	67

FAIRFIELD COUNTY.

	Number of Districts which reported.	Any Exercises.	Number of Trees and Shrubs.	Apple.	Arbor Vitae.	Ash.	Birch.	Boxwood.	Butternut.	Catalpa.	Cedar.	Cherry.	Chestnut.	Elm.	Fir.	Hemlock.	Horse Chestnut.	Linden.	Maple.	Oak.	Peach.	Pear.	Pine.	Poplar.	Spruce.	Tulip.	Walnut.	Willow.	Japanese Ivy.	Shrubs.	Vines.
Bridgeport	5	Yes	84						2	1	1		31				1		7				2				1		12	2	24
Danbury	1	No																													
Bethel	2	Yes	39																21											7	
Brookfield	2	Yes	2																1												
Darien	1	Yes												1																	
Easton	2	Yes																													
Fairfield	6	Yes	78								4	2		10		1			32										27	1	
Greenwich	4	Yes	13			2													1	1											
Huntington	2	No	2																2										9		
Monroe	1	Yes	2											2					4												
New Canaan	5	Yes	70	4	5	1		2			2			2				2	38	4	1	2		1				3	1	2	
New Fairfield																															
Newtown	3	Yes	19									1							9						4				5		
Norwalk	5	Yes	32	2										6		1			1	2									3		
Redding	3	Yes	18											2					2												
Ridgefield	4	Yes	29								5		6						8		3	2			5						
Sherman																															
Stamford	2	Yes	5																												
Stratford	2	Yes	49	18												1			10							5			6		
Trumbull	2	Yes	41							3				2					8	2	7								15	4	
Weston	2	Yes	6			1					1					2															
Westport	3	Yes	27			1					2			3	2				12								1		6		
Wilton	2	Yes	3																3												
	57		525	6	23	4	1	2	2	4	15	3	6	59	2	3	3	2	168	8	12	4	4	1	9	5	1	4	12	81	31

WINDHAM COUNTY.

	Number of Districts which reported.	Any Exercises ?	Number of Trees and Shrubs.	Ash.	Beech.	Birch.	Elm.	Hemlock.	Horse Chestnut.	Linden.	Maple.	Oak.	Pine.	Spruce.	Shrubs.	Tulip.
Brooklyn	2															
Ashford	1	Yes														
Canterbury	4	Yes	54	9			3	2			30			2	5	3
Chaplin																
Eastford	2		9					1							1	
Hampton	3	Yes	34								7				15	5
Killingly	6	Yes	81				7				20		1		54	
Plainfield	4	Yes	2				2									
Pomfret	1	Yes	1							1						
Putnam	1	No														
Scotland	2		18								6				12	
Sterling	1	Yes	17													
Thompson	3	Yes	10	2			5				3					
Windham	5	Yes	13		2	1			2		7					1
Woodstock	4	Yes	20				15				4	1				
	39		259	11	2	1	32	3	2	1	85	1	1	2	87	9

LITCHFIELD COUNTY.

	Number of Districts which reported.	Any Exercises?	Number of Trees and Shrubs.	Apple.	Ash.	Basswood.	Beech.	Cedar.	Cherry.	Chestnut.	Cottonwood.	Elm.	Fir.	Hemlock.	Locust.	Maple.	Mulberry.	Oak.	Peach.	Pear.	Pine.	Plum.	Spruce.	Tamarack.	Tulip.	Willow.	Shrubs.	Vines.
Litchfield	1	Yes	25																									
Barkhamsted	1	No																										
Bethlehem	1	No																										
Bridgewater	1	Yes	6																									
Canaan	1	Yes	1																									
Colebrook	1	Yes	9																									
Cornwall	3	Yes	28																									
Goshen	3	Yes	30	2	2																							
Harwinton	3	Yes	29		2																							
Kent	3	Yes	58																									
Morris	2	No																										
New Hartford	2	Yes	29		2																							
New Milford	7	Yes	38																									
Norfolk	3	Yes	18																									
North Canaan	2	Yes	58	2	3																							
Plymouth	6	Yes	11																									
Roxbury	2	Yes	15																									
Salisbury	6	Yes	34		6																							
Sharon	6	Yes	58																									
Thomaston	1	No																										
Torrington	1	Yes	13																									
Warren	1	Yes	3																									
Washington	3	Yes	3																									
Watertown	3	Yes	5																									
Winchester	2	Yes	16																									
Woodbury	2	Yes	13																									
60	...	...	350	4	7	6	2	11	1	1	5	31	2	9	4	128	1	2	1	2	10	5	15	5	1	1	64	4

MIDDLESEX COUNTY.

	Number of Districts which reported.	Any Exercises?	Number of Trees and Shrubs.	Apple.	Apricot.	Cedar.	Cherry.	Elm.	Hemlock.	Horse Chestnut.	Maple.	Peach.	Pear.	Pine.	Plum.	Poplar.	Japanese Ivy.	Shrubs.	Vines.	
Middletown	3	Yes	8						3		5									
Haddam	2	Yes	43	10						8		5	6						14	
Chatham	2	Yes	5								3									
Chester	2	Yes	18								18									
Clinton	2	Yes	37	3	1	6	11		43	17	1	20	52	3	5		324			
Cromwell	2	Yes	83					Some			Some				20		Some			
Durham	1	Yes	3					1				2								
East Haddam	4	Yes	37								37									
Essex	3	Yes	11						1			5		1				4	Some	
Killingworth																				
Middlefield																				
Old Saybrook	1	Yes	16					Some			Some									
Portland	1	Yes	5									5								
Saybrook																				
Westbrook	1	No																		
	24		531	13	1	6	11		24	20	10	100	52	6	4	5	20	324	6	14

TOLLAND COUNTY.

	Number of Districts which reported.	Any Exercises?	Number of Trees and Shrubs.	Apple.	Ash.	Birch.	Catalpa.	Cherry.	Elm.	Fir.	Hemlock.	Maple.	Oak.	Pear.	Pine.	Plum.	Poplar.	Spruce.	Tulip.	Walnut.	Willow.	Shrubs.	Vines.
Tolland	1	Yes	3																			3	
Andover	1	No																					
Bolton	1	No																					
Columbia	4	Yes	24		1							5			2								
Coventry	6	Yes	16						3		2	9			1	1							
Ellington	3	Yes	8		2							6											
Hebron	4	Yes	25						2			4							1				
Mansfield	4	Yes	20						1			23						1					1
Somers	3	No	1									1											
Stafford	7	Yes	82	4		1	1	3	5		3	27			19		1				1	13	4
Union	4	Yes	10							1		7										2	
Vernon	4	Yes	23	1					23			1	1		1								
Willington	6	Yes	75	3	1						2		1	1	11					1		12	
	47		293	8	4	1	1	3	34	1	7	83	2	1	34	1	1	1	1	1	1	30	5

REPORT OF THE SECRETARY.

Counties.	Number of Districts which reported.	Apple and Shrubs.	Apricot.	Arbor Vitae.	Ash.	Basswood.	Beech.	Boxwood.	Bursera.	Catalpa.	Cherry.	Chestnut.	Cork.	Cottonwood.	Elm.	Fir.	Hackmatack.	Hemlock.	Hornbeam.	Horse Chestnut.	Linden.	Locust.	Maple.	Mulberry.	Oak.	Peach.	Pear.	Pepperidge.	Pine.	Plum.	Poplar.	Spice.	Tamarack.	Tough-horn.	Tulip.	Walnut.	Willow.	Japanese Ivy.	Vines.	Shrubs.		
Hartford.....	60	1,201	42	..	91	17	31	1	14	27	1	1	1	1	180	2	1	8	..	1	1	1	2	556	112	6	13	46	20	1	8	4	..	3	8	3	1	32	279			
New Haven.....	51	568	8	..	1	1	5	2	32	2	1	81	..	4	1	..	3	128	..	4	7	..	41	..	6	1	22	20	113			
New London.....	44	342	4	6	2	1	1	1	1	40	1	1	1	184	..	8	..	3	19	4	2	6	18	3	..	67				
Fairfield.....	57	525	6	23	4	1	2	4	15	3	6	..	..	..	59	2	3	3	..	..	..	..	168	8	12	4	..	4	1	9	..	5	1	4	12	31	81
Windham.....	39	259	..	..	11	2	1	..	..	..	..	..	..	32	..	3	..	..	..	2	1	..	85	1	..	..	1	..	1	2	..	9	..	..	..	..	87
Litchfield.....	60	350	4	..	7	6	9	..	11	1	1	5	..	31	2	9	..	..	..	..	..	4	128	1	2	1	2	19	5	15	5	1	1	..	4	64	
Middlesex.....	24	531	13	1	6	11	24	..	20	10	100	..	52	6	..	4	5	20	324	14	6				
Tolland.....	47	203	8	..	4	1	1	1	3	..	..	..	..	34	1	7	..	..	..	..	..	83	..	2	1	..	34	1	1	1	1	1	1	1	..	5	30
	412	4,159	81	123	122	7	26	6	15	9	58	44	9	1	5	3	48	7	1	54	1	18	1	9	1,432	2	37	71	33	3	168	40	23	41	9	4	21	17	27	364	106	727

SCHOOL HOUSES AND LIBRARIES.

Summary of Statistics, 1886-7.

Number of new school-houses built in the year,	-	14
Decrease for the year, - - - -	-	3
Number of school-houses in the State, - - - -	-	1,655
Number of school-houses reported in poor condition,		156
Decrease for the year, - - - -	-	15
Number of schools having libraries, - - - -	-	322
Number of books in school libraries, - - - -	-	47,907
Number of districts drawing State money during the fiscal year, - - - -	-	287
Total amount of library money paid to districts during the fiscal year, - - - -	-	\$5,000
Number of public libraries reported, - - - -	-	82
Number of sittings in public schools, - - - -	-	129,344

Summary of Statistics, 1866-88.

Report of	School-houses.	New ones built.	No. in poor condition.	No. of sittings.	No. of school librari's.	No. of districts drawing in year.	Amount drawn.	No. of books reported.
1866	1,606	20	310	----	453	----	\$ 590.00	----
1867	1,655	22	313	----	----	----	515.00	----
1868	1,637	43	291	----	----	----	865.00	----
1869	1,639	29	304	----	----	----	1,730.00	----
1870	1,634	45	282	----	----	----	1,960.00	----
1871	1,654	45	270	----	----	----	2,385.00	----
1872	1,651	33	256	----	----	----	2,345.74	----
1873	1,647	42	254	----	----	----	2,955.00	----
1874	1,663	34	240	----	----	----	3,340.00	----
1875	1,656	40	218	----	----	----	2,450.00	----
1876	1,654	21	224	----	----	154	2,900.00	----
1877	1,651	26	212	----	----	132	2,270.00	----
1878	1,647	22	201	----	----	178	2,975.00	----
1879	1,664	30	213	----	----	167	3,190.00	----
1880	1,656	16	192	----	----	195	3,040.00	----
1881	1,647	20	211	----	----	221	3,005.00	----
1882	1,654	16	208	----	----	221	4,255.00	----
1883	1,633	17	217	----	----	188	3,470.00	----
1884	1,661	25	184	----	----	165	3,090.00	----
1885	1,657	22	177	124,019	219	195	3,025.00	----
1886	1,658	19	167	126,266	262	185	3,300.00	----
1887	1,659	17	171	128,350	290	203	3,525.00	43,873
1888	1,655	14	156	129,344	322	287	5,000.00	47,907

The number of school-houses built since 1865 is 618, which is more than one-third of the whole number now standing.

While the number of school-houses reported is the same for 1867 as for 1888 there have in twenty years been great changes.

New buildings are constantly demanded and erected in cities and large towns, while in declining towns school-houses have been entirely abandoned. Often two or more contiguous districts have united and occupy one school-house, instead of the two or more formerly required.

The number of sittings is greater than the number of scholars who enter the public schools. It cannot be said, however, that there are ample accommodations for all children. There are towns and districts where little children are wasting their time because too many are crowded into one room. Not more than 40 children can be seated and instructed in one room, if due regard is paid to health and efficient teaching. Especially do young children form bad habits and fail in the special work of early years, if they cannot receive adequate attention.

In the last few years the interest in libraries and books for schools has greatly increased. The number of school libraries has increased in four years from 219 to 322. The number of districts drawing money from 195 to 287, and the amount drawn from \$3025 to \$5000—the limit of the State appropriation.

There were more applications at the close of the last fiscal year than could be paid out of the appropriation for the year.

A report of the number of books now in these libraries has been secured for two years only. It appears to have been accurately made, but needs verification.

These libraries have everywhere been of advantage to the schools. They have stimulated the scholars, and aided the teachers. There is need of legislation which will make the benefits received from this library money permanent. There are many districts which have in years past drawn this money from the State and to-day have not a remnant of a book or of any apparatus. There are well-known cases of misappropriation, while the cases of neglect and loss because of changing officers are very numerous.

The gratifying advance shown in the matters of buildings and libraries is not universal. There are still poor school-houses and 300 districts which have never drawn library money. The following statement, verified by personal inspection, describes a school-house in a district which will neither repair nor build.

"The appearance of the inside of the room is bad. The floor is dirty, the desks cut and unpainted, some of the seats broken so that they are hardly six inches wide, most of the plastering is off the walls and ceiling, and windows are loose and dirty. The outhouse was in an awful condition, * * the door was off its hinges and the building faced the road."

TEXT-BOOK OF PHYSIOLOGY.

The following circular was sent to the Secretaries of the Boards of Visitors :

OFFICE OF STATE BOARD OF EDUCATION,
HARTFORD, September 7th, 1887.

DEAR SIR—The text-book on Physiology, prepared and published by order of the General Assembly of 1886, will be ready for distribution about September 15th.

Copies for "use of scholars in the public schools needing the same," will be sent to you for distribution to the schools of your Town. If you desire a supply, please inform me on enclosed postal to what express office the bundle shall be sent.

The book is elementary. Examiners and teachers should be familiar with more extended works. It is not a reading book. No special endeavor has been made to render the text interesting. The subject must be made attractive by teachers, and to this end suggestions, illustrations, and experiments have been given. The whole is an outline and guide for teachers and scholars.

It follows that nothing will be gained by putting the book into the hands of all scholars. Scholars below the highest class in graded and ungraded schools can be most successfully taught by oral lessons, using the book as an outline.

A set of twelve diagrams will be sent for each school. They are intended as copies for drawing lessons.

The books will be furnished to towns "for the use of scholars in the public schools." The law is understood to impose the distribution and care of these books upon the Visitors who are town officers. They can be used by scholars in the different schools, but remain under the control of the Visitors, who should see that they are preserved, and transmitted from class to class as they are needed.

Books can be furnished free only for the use of scholars. In order that teachers and others may supply themselves, copies will be sent to any address upon receipt of 25 cents for each copy, which covers cost of book and expense of sending.

Yours truly,

Secretary.

This circular gave the views of the Board as to what particular classes should have the book in their hands, and what classes should be taught orally. It was understood and the understanding was acted upon, that Boards of Visitors, and teachers so far as they were consulted by boards of visitors, should decide where the book should be used.

At first a basis of distribution was decided upon, viz: one-fifth of the average attendance in winter. This basis was reached after consultation with school visitors and teachers in several representative towns. It was tentative and not final and merely a convenient means of determining how many should be sent, if an exact number were not named by the local board. The number called for by school visitors has in every case been sent. The number distributed in response to definite calls has slightly exceeded the estimate on the basis above mentioned.

The call for books has been voluntary on the part of school officers. Thus far the Board has not prescribed its book to the exclusion of any other. It is a noteworthy and gratifying fact, that without such prescription, the books have gone into all the towns and independent districts, except six. This general distribution of the book is due largely to the fact that it costs nothing. But it is presumed that if the book were a bad one, it would not be accepted.

It is too early to pronounce a confident opinion upon the experiment. Some like the book and some do not. So far as can be learned, and the investigation has been impartial, those who like it are more than those who do not. It is not in purpose nor in methods suggested, the ordinary text-book, but many who are interested in good teaching approve its plan.

The following table gives record of distribution to December 31st, 1887. Two towns have applied for and received books since this date.

Table Showing the Number of Text-books on Physiology and Hygiene, and Diagrams sent to each Town.

Towns.	No. of Books.	Sets of Dia-grams.	Towns.	No. of Books.	Sets of Dia-grams.
Hartford	1,320	60	Wallingford	150	25
Avon	30	7	Waterbury	85	10
Berlin	110	11	" Centre	875	80
Bloomfield	80	9	" complete	960	90
Bristol	125	25	Wolcott	25	6
Burlington	45	9	Woodbridge	50	6
Canton	175	12			
East Granby	55	6	25 Towns	4,594	412
East Hartford	126	17			
East Windsor	125	17	New London	540	40
Enfield	200	18	Norwich Town	35	2
Farmington	15	9	" Central	120	10
Glastonbury	85	20	" West Chelsea	110	5
Granby	40	10	" other Districts	175	15
Hartland	20	9	" complete	440	32
Manchester	300	16	Bozrah	25	7
Marlborough	20	4	Colchester	100	12
New Britain	450	17	East Lyme	50	9
Newington	25	4	Franklin	25	7
Plainville	60	4	Griswold	70	14
Rocky Hill	60	4	Groton	135	11
Simsbury	80	14	Lebanon	50	14
Southington			Ledyard	75	13
South Windsor	60	10	Lisbon	46	7
Suffield	100	11	Lyme	25	7
West Hartford	80	8	Montville	75	15
Wethersfield	65	8	North Stonington	100	15
Windsor	115	11	Old Lyme	50	8
Windsor Locks	100	5	Preston	125	12
29 Towns	4,066	355	Salem	20	8
			Sprague	30	5
New Haven City	1,350	95	Stonington	335	30
" Westville	50	1	Voluntown	70	8
" South	5	1	Waterford	75	11
" complete	1,405	97			
Beacon Falls	25	3	21 Towns	2,461	287
Bethany	25	5			
Branford	150	15	Bridgeport		
Cheshire	100	12	Danbury	6	1
Derby			Bethel	18	13
East Haven	27	3	Brookfield	40	8
Guilford	75	14	Darien	8	2
Hamden	80	13	Easton	20	8
Madison	65	12	Fairfield	400	17
Meriden	600	23	Greenwich		20
Middlebury	15	6	Huntington	260	22
Milford	90	7	Monroe	50	7
Naugatuck	200	10	New Canaan	150	11
North Branford	32	7	New Fairfield	20	7
North Haven	50	8	Newtown	200	21
Orange	200	15	Norwalk	900	45
Oxford	55	12	Redding	32	8
Prospect	10	3	Ridgefield	75	13
Seymour	175	11	Sherman	25	6
Southbury	30	9	Stamford	300	20

Towns.	No. of Books.	Sets of Diagrams.	Towns.	No. of Books.	Sets of Diagrams.
Stratford	150	10	Middletown	150	18
Trumbull	85	6	“ City	222	12
Weston	15	6	“ complete	372	30
Westport	75	12	Haddam	60	12
Wilton	50	9	Chatham	60	14
23 Towns	2,879	272	Chester	50	4
Brooklyn	75	9	Clinton		
Ashford	75	10	Cromwell	10	10
Canterbury	35	11	Durham	45	6
Chaplin	20	4	East Haddam	120	17
Eastford	20	5	Essex	40	6
Hampton	55	7	Killingworth	25	8
Killingly	165	28	Middlefield	30	4
Plainfield	100	11	Old Saybrook	25	4
Pomfret	65	8	Portland	150	10
Putnam	200	10	Saybrook	50	5
Scotland	25	5	Westbrook	25	7
Sterling	75	9	15 Towns	1,062	137
Thompson	125	14			
Windham	250	11			
Woodstock	75	16			
15 Towns	1,360	158			
Litchfield	150	19	Tolland	130	10
Barkhamsted	75	12	Andover	15	3
Bethlehem	15	6	Bolton	30	4
Bridgewater	20	5	Columbia	37	8
Canaan	20	9	Coventry	80	12
Colebrook	65	12	Ellington	45	9
Cornwall	95	15	Hebron	55	9
Goshen	55	11	Mansfield	100	14
Harwinton	30	11	Somers	50	10
Kent	165	13	Stafford	125	5
Morris	50	6	Union	40	6
New Hartford	50	9	Vernon	225	9
New Milford	200	21	Willington	50	8
Norfolk	150	12	13 Towns	982	107
North Canaan	75	5			
Plymouth	70	13			
Roxbury	50	9	Counties.		
Salisbury	100	17	Hartford	4,066	355
Sharon	55	17	New Haven	4,594	412
Thomaston	50	6	New London	2,461	287
Torrington	325	15	Fairfield	2,879	272
Warren	50	7	Windham	1,360	158
Washington	75	12	Litchfield	2,280	305
Watertown	50	9	Middlesex	1,062	137
Winchester	150	20	Tolland	982	107
Woodbury	90	14	The State	19,684	2,033
26 Towns	2,280	305			

TOWN MANAGEMENT.

The prime difficulty in the way of good schools is that our system of school administration is not efficient. The cause of this inefficiency is found in the separation of the municipal and school organization. The town, the unit of municipal organization, is not the unit of school organization.

The fact that the defects of our present system are not universally acknowledged, and many are satisfied with things as they are, calling decrepitude repose, does not furnish reason for regarding this state of things with complacency. Testimony is formidably plentiful that the whole State and especially the smaller communities are experiencing or are threatened with practical inconvenience and loss. Some children can go to school 200, and others only 120 days. If the instruction in both cases is good, the latter receives 80 days or 16 weeks less instruction than the former. If, as is likely to be the case, the 200 days cover good instruction and the 120 days poor instruction, no fancied freedom from interference or enjoyment of traditionary routine, balance the monstrous inequality. These schools fix the intellectual character of the children, and here are formed the public sentiment and public policy of communities which they will in a few years control. The history of every individual and of the town and State is here begun.

If schools are short and poor and form themselves at haphazard, will not the offspring of such schools come short of that intellectual standing which their more favored neighbors attain?

There are, moreover, glaring inequalities of expense and of taxation, abuses of examination and appointment engendered by the removal of school affairs from the light of public discussion and the pressure of public sentiment. There is confusion and weakness, and though properly an educational agency, the system is concerned in doing as little as possible, and doing that little without regard to the best interests of children.

The public schools are a necessity. School organization is a necessity, and this organization based upon municipal unit tends to efficient management of schools. Such a system would

attract public attention, stimulate interest among intelligent people. It would inspire respect and confidence, because there would be a body of men in every town upon whom responsibility could be fixed.

Below will be found a bill prepared and introduced at the last session of the General Assembly, together with remarks upon the same by Hon. E. B. Bailey of Windsor Locks, and by Hon. George G. Sumner of Hartford. The bill does not differ in plan from the present law permitting the town system, but details which experience has suggested are incorporated.

Proposed Act relating to Town Management of Public Schools.

SECTION 1. Every town in this State shall, from and after September first, 1887, assume and maintain the control of all the public schools within its limits, and for this purpose every such town shall be a school district, and shall have all the powers and duties of school districts except in so far as these are inconsistent with the provisions of this act.

SEC. 2. All business concerning the public schools, including all heretofore necessary or proper to be transacted in district meetings, shall be transacted in town meetings. The annual town meeting shall be the annual school district meeting.

SEC. 3. At its next annual town meeting, every town which now has a board of school visitors composed of three members shall elect, by ballot, three residents of the town as a school committee, and every town which now has a board of school visitors composed of more than three members shall elect, by ballot, nine residents of the town as such committee, who shall by lot, if necessary, divide themselves into three classes, to hold office from the time of their election till the expiration of one, two, and three years respectively from the sixteenth day of the next July. At this election, no one shall vote for more than five persons as members of this committee. At every subsequent annual town meeting, one-third of the committee, namely, one or three members, as the case may be, shall be elected by ballot for the term of three years, to begin on the sixteenth day of the ensuing July. If the number to be chosen be three, no person shall vote for more than two. The said school committee shall have power to fill vacancies in its membership until the next annual election, when such vacan-

cies shall be filled for the remainder of the term by the town, by ballot. From the first of September, 1887, until the next annual town meeting, the school visitors and the chairmen of the committees of the districts within each town shall constitute a joint board, having the powers and duties of the school committees created by this act. After the aforesaid date no boards of school visitors shall be elected and no district committees except in districts which retain their organization in the manner hereinafter provided. Any town may at any time vote to make the number of its school committee either three or nine, and at each subsequent election one-third of the new number shall be elected in the manner above provided, but those theretofore elected shall remain in office until the expiration of their terms, *provided, however*, that in every town now constituting a union school district the school committee shall be of the same number, and shall be elected in the same manner as at present.

SEC. 4. Said school committee shall, in general, have all the powers, and perform the duties both of district committees and boards of school visitors, except in so far as such powers and duties are inconsistent with the provisions of this act. Especially they shall maintain in their several towns good common schools of the different grades, at such places and times as in their judgment shall best subserve the interests of education, and as shall give all the scholars of the town as nearly equal advantages as may be practicable; they shall have charge of schools heretofore organized or maintained by their respective towns; they shall appoint a chairman and secretary, who shall respectively perform the duties and exercise the powers now pertaining to the chairman and secretary of the boards of school visitors; they shall appoint one or more acting visitors, or a superintendent to exercise, under their discretion, a supervision over schools; they shall have the care and management of buildings, lands, apparatus, and other property used for school purposes; they shall determine the number and qualifications of the scholars to be admitted into each school; they shall employ a requisite number of qualified teachers, but shall make no contract for a longer period than one year; they shall designate the schools which shall be attended by the various children within their several towns, and shall make such provision as will enable every child of school age residing in the town, who is of proper physical and mental condition to attend some public day school, at least six months in each year, but they may arrange,

if they see fit, with the committee of an adjoining town for the instruction therein of such children as can attend there more conveniently; they shall report in detail to the annual town meeting concerning the expenditures on the schools of the town during the year ending on the fifteenth day of the previous July, and also concerning their doings, and the condition of the schools under their superintendence; and they shall perform all lawful acts necessary to carry into effect the powers and duties granted by this act.

SEC. 5. The town clerk and the treasurer of each town shall have, in addition to their other powers and duties, all the powers and duties, respectively, of the clerk and treasurer of a school district, except in so far as such duties are rendered unnecessary by the provisions of this act.

SEC. 6. The records of the school districts heretofore existing in each town shall be handed over to the town clerk of the said town, and shall be preserved by the town.

SEC. 7. All property heretofore held by school districts shall vest in the towns in which such districts were situated, to be held by such towns for the same purposes. All debts, obligations, or pecuniary trusts of any school district existing at the passage of this act shall remain in force against the town in which such district was situated, and shall be paid and performed by said town, except as hereinafter provided. The assessors of each town shall, on or before the thirtieth day of September, 1887, appraise the property of each school district within its limits. At the next annual town meeting after the passage of this act, an equalization tax shall be levied upon the grand list of the whole town, such as would in every district of the town raise an amount of money at least equal to the value of the property of the district less its indebtedness, and there shall then be abated to the tax-payers of each district so many mills of the said equalization tax rate as upon that part of the grand list of the town taxable within that district would yield an amount of money equal to the appraised value of its property, less the amount of indebtedness of the district. Any district shall have power to determine that any stated amount of its indebtedness shall not be devolved upon the town, but shall be owed by such district exclusively, as heretofore, and any town shall have this same power regarding the indebtedness of any district situated within its limits; *provided*, that if action is taken both by the town and by

the district having such indebtedness, the vote stating the larger amount of indebtedness to be separately retained by the district and not devolved upon the town shall determine said amount; *and provided further*, that this amount of indebtedness thus separately retained by the district shall not be deducted from the appraised value of its property in fixing the amount of the equalization tax to be abated for its tax-payers. Every school district shall remain separately and solely liable for any indebtedness or liability by it incurred previously to September first, 1887, unless the amount of such liability or indebtedness shall be deducted as aforesaid from the appraised value of its property in fixing the amount of the equalization tax to be abated for its tax-payers. For the purpose of distributing the effect of the equalization tax upon its tax-payers over a number of years, any school district may borrow and pay to the town any part of the sum of money which the equalization tax rate would raise upon that part of the grand list of the town taxable within said district, and the sum so paid to the town shall be added to the appraised value of the property of the district in calculating the number of mills of the equalization tax rate to be abated to its tax-payers. The provisions of this section shall not apply in any town in which the parties in interest shall, before the first day of September, 1887, agree upon any other mode of equalizing the differences in property and indebtedness between the several districts of said town.

SEC. 8. In the case of any school district, the fractional parts of which belong to different towns, the selectmen of such towns shall have power by mutual agreement to appraise the property of said district, and to apportion the property and debts of said district between the towns, and find the balance due from either of said towns to the other of said towns. Such agreement, in writing, shall be final and binding upon such district and such towns. Whenever such selectmen fail thus to agree before the twentieth day of July, 1887, then upon the application of either town, or any tax-payer of said district, any judge of the superior court shall appoint a committee which shall finally decide the matter on which the selectmen have thus failed to agree, and shall lodge their decision with the respective clerks of such towns, from which time their decision shall be binding upon such districts and such towns. The appraised value of the property, and the amount of money thus acquired by any town,

diminished by the amount of money paid to the other town, and by the amount of the indebtedness of the district apportioned to the town, shall be remitted by the town to the tax-payers of the portion of such district within its limits in collecting the equalization tax, provided for in section seven, in the same manner as in the case of other districts entirely within the town.

SEC. 9. No powers of school districts or any officers thereof, except such as are reserved or given by this act, shall be exercised after September first, 1887, but every school district then existing may preserve its organization and necessary powers for the purpose of closing and settling up its affairs, and especially for the purpose of managing and paying any of its indebtedness not devolved upon the town.

SEC. 10. At the close of each month, unless the town otherwise vote, the chairman of the board of selectmen of each town shall, upon the written application of the chairman of the school committee, draw orders upon the town treasurer, which shall be by him honored, for the payment of all expenses incurred in the maintenance of the public schools, and detailed in such written application.

SEC. 11. The school year shall, in the year 1888, and thereafter, end on the fifteenth day of July, and said day shall be substituted for the thirty-first day of August, in all estimates, reports, and certificates relating to schools in which the latter day has been required by law to be taken as the end of a year of account.

SEC. 12. This act, with the exception of section eleven, shall not apply to any town which has a city within its limits.

SEC. 13. All acts and parts of acts inconsistent herewith are hereby repealed.

Mr. BAILEY said :

The whole aim and object of this bill is to secure to every school, and to every child, equal privileges; and your committee believes it accomplishes its object.

We shall have better schools, because all of them will be under one management; *each* and *every* child will have equal advantages with others living in the same town; it will be more economical and more business-like, and better in every way.

1. This is not a bill to *abolish*, nor necessarily to *unite* schools, but to secure to all the schools of a town, through *town management*, equal advantages.

2. The bill makes it the duty of the towns to care *directly* for the schools in all particulars, the same as they do for roads, bridges, etc. *Most* of the matters relating to schools are *already* under town management; the towns are charged with the support, but are denied the right to *hire* and *pay* the teachers and to have charge of school buildings; the district *hires*, the *town* pays; the temptation is for the district to create expense and for the town to overlook special needs; this bill will remedy these evils, because it will give to the towns *final authority* and *responsibility*, which *now* no one has.

3. The business pertaining to schools can be all done at the annual town meetings, where the taxes which support the schools are laid, and it is but *just* that the *same* body and the *same* persons which furnish the money shall say how it shall be expended.

4. I will mention some of the evils that have grown up under our present system. There is *inequality of school privileges* in the same town; some children can attend school *forty* weeks, while *others*, not ten rods away, can only attend *twenty-four weeks*, simply because they are not in the same district. Locality determines the amount, and sometimes the quality, of schooling; consequently about one-half the children of the State must grow up with about one-half the advantages of education that the others have. We call our schools *free*; this is true only in part; our best schools are only free to those living in large districts or favored localities; others must take the small portion that their unfortunate position or their poverty permits. The money comes from the State and town tax, and then is generally apportioned to support a school of the minimum length, and without *any regard* for obtaining the *most* for the *money*; the effort seems to be to maintain the *greatest* number of schools for the *least* money. This process has gone on in *one* town, until with 158 scholars, ten districts are maintained at a cost of between \$1300 and \$1400 for the whole town; this money is largely thrown away, be-

cause the schools are *poor* and *short*. As has been said, with fewer and fewer scholars, less and less money, schools in the back districts run down, they are regarded as of little consequence, therefore little time or money is bestowed upon them; under the present system no continuous education can be gained, and where strong men and women were once trained, the endeavor now is to give as little training as *possible* to as *few as possible*.

Many of our best families leave the country towns for no other reason in the world than to get to a place where their children can have the advantages of good schools. There are ninety-five towns in the State that to-day have fewer children than they did ten years ago (see page 160, Report of Board of Education, 1886).

The present system is killing the schools in our farming towns, and driving the boys and girls to the cities where they can be educated.

Much has been said about "*the Little Red School-house on the hill*." The small and selfish management which would not permit generous dealings with our children has been the cause of many country schools being deserted. This bill proposes to give *all* towns an opportunity, to build up in a generous way, the schools which are needed, and to give to *all* of the children, be they *rich* or *poor*, *equal* educational advantages.

The reason that cities are not included, is that they are already provided with good schools. The districts are large and strong enough to take care of themselves; more than all that, of the ten cities in the State, three are already under this system (New London, Bridgeport, New Britain); two of the remaining seven are substantially so, and some of the others partially so. There are so many special laws in regard to city schools, that it would be hard to adjust, equally, the interests of the various districts. In many cities there are large and prosperous schools, apparently not needing the direct attention of the towns that the schools in other localities do. (*See General Statutes, page 146, Sec. 12, for school law for cities.*)

There are nineteen towns in the State that manage their schools in the way that this bill proposes, and in those nineteen towns the average attendance is four per cent. greater than in towns under the old system.

This is not an untried plan. Two of the New England States have adopted it altogether, Massachusetts and New Hampshire, and all the rest of the States in New England in part; more than 200,000 of the people of our own State are conducting their schools under this system, and upwards of 3,000,000 of people in New England are under it; more than all that, but seven States in the Union are working under the old system.

I have heard no one give a good reason why this bill should not pass.

Objection was made in the House to the arbitrary character of this bill; every law in the world is so, and *must* be so, to be a law; the law says, every parent or guardian having charge of children *must* cause his children or wards to attend school, and to be instructed in certain branches; no one feels this to be an interference with private rights; this Senate has just passed a bill that said no minor *shall* be employed more than ten hours per day, and another that said, that payments *shall* be made weekly for all wages.

Is one any more compulsory than the other? or does one interfere with private rights more than another?

The law says that districts *must* maintain schools, twenty-four weeks at least; children *must* attend all the time, or sixty days, or else they *shall* not be employed in any work.

This right of the State to use the word *shall*, is enforced by the fact that the State furnishes a large sum of money each year to support the schools; from the school fund comes annually \$114,000, and from State tax \$228,000, which goes to the towns directly from the treasury; the State requires a census of its children in order to justly distribute this large sum of money; it fails in its *duty*, if it fails to make provision for the best and wisest use of this amount. This money is now paid to the towns from the State, the towns give it to the various districts, the latter handle it as they please, so that the town cannot see that it is properly used. The power is now confided to

a very few, who, in a despotic way, can hire the teachers, manage the schools to *their own* advantage, to suit themselves without regard to the interests of the children, or the town, which is charged with the support of the schools.

MR. SUMNER said :

Mr. President, Connecticut used to have perhaps the best school system in the world. I believe we have many good schools to-day, particularly in the cities, but I have taken pains to talk with some of those who know most about our public schools and they tell me that a very large proportion of our common schools hardly offer anything to children which is fit to be called education. It seems to me time that something was done. The evil seems to be the worst in outlying and poor districts of our country towns.

The only remedy for such cases is the one provided by this bill. We must hold the towns responsible for providing means of a good education for every child within their limits. It makes me a little impatient to hear some people argue that we ought not to say "shall" to the towns. A law isn't good for much that doesn't say *shall*. There is no justice in allowing the people whose property lies in a rich school district to perpetuate the present system. There is no reason why a farm or a building because it is in one part of the town should pay a heavier rate of taxation than property which lies in another part of the town. Furthermore, the State gives to the towns annually the sum of \$350,000 for the purpose of educating children between the ages of four and sixteen years, and it may surely say that no town shall use that money without assuming the responsibility of giving equal opportunities of a good common school education to all the children within its borders.

I think I heard some one say that he didn't believe in this bill because it meant centralization. I suppose he said so because for some reason he didn't like the bill and wanted to give it a bad name. If it was really a measure of centralization I should not favor it. Centralization means the destruction of local self-government. This bill on the contrary means the invigoration of local self-government. The great system of local self-government outlined in our federal constitution is so preg-

nant with promise of permanent prosperity to the American people only because it was organized with marvelous shrewdness. We cannot enjoy similar advantages from applying to the principle of local self-government within the State unless we will similarly have some regard to political experience and exercise some sense and political judgment. One rule which we must follow is this: that duties of local government can never be wisely laid on any community which is not so constituted as to have a vigorous, independent public life.

Our old New England towns have such a vigorous public life of their own. But when you take away the duties of local government from the towns and give these to from six to twenty little fractions of the towns, you are violating sound principles of political organization. The effect of the changes of population in Connecticut has been to make this more apparent and to leave the life of hundreds of school districts feebler and feebler from year to year. There are many of them which really have not within their limits a single man who is fit to have the hiring of a school teacher. The population of very many has become so small that the law of averages, which in a considerable community by neutralizing the selfishness of individuals makes the rule of majorities bearable, no longer has any chance to operate. A single family may control the school in the most brutal disregard of the public interest. In hundreds of districts girls are kept as teachers who are ignorant and incapable simply because they are sisters or daughters or nieces or because they will pay the larger part of their salaries to the committee man for board.

All the history of political institutions is the story of efforts to prevent this kind of use of political authority. After centuries of groping experiment we have found out that on the whole there is only one way of getting ourselves governed with some sort of genuine regard for the public interest and that is to develop some shrewd organization which will really make those in authority feel a practical responsibility to an intelligent public opinion. This is just what you do not accomplish and cannot accomplish within these little school districts and this is why you now have and always will have all sorts of abuses within them. There is no more sense in

a district management of schools, than there would be in a district management of the poor or of the roads. I believe in local self-government, but I believe also that by restoring to the towns the complete responsibility for the common schools you tend to increase the public interest in town affairs, to invigorate the local public life, and to encourage the development of a watchful and intelligent public opinion without which you can have no self-government that will not fail of thorough success. In one sense the change effected by this bill is a very slight one. In the first place it substitutes the authority of one committee elected in annual town meeting for the dual and conflicting authority of school visitors and district committee men. There is certainly nothing very terrifying about this change. We should think a private business pretty poorly organized if the man who superintended it had nothing to say about the employment of workmen, and if the employer of the workmen never went near the work or consulted the superintendent. But that is just the principle on which we manage our schools. The acting school visitor almost always knows something about education, and on that account is chosen to inspect the schools. The district committee man in most country towns is not chosen because he knows anything about education, nor does he ever go near his school. But he hires and dismisses teachers at his own pleasure and practically the school visitor has nothing to say about it.

In the second place this bill substitutes the town meeting for the little district meeting. There is certainly nothing very alarming about that.

In the third place it makes all the property of the town pay the same rate of taxes. There is certainly nothing but justice in that, yet these are all the changes which this bill makes.

The importance of the measure to my mind lies in the fact that these changes, slight as they are, involve the substitution of a good organization for one which is unsound in principle and inefficient in operation. We cannot, by passing this bill, legislate good schools into the places of bad ones.

The responsibility for the character of the schools is still left entirely with the local communities.

But by removing the obstacles which a bad system of school management now creates we shall certainly bring nearer the day when every child in the State shall enjoy that opportunity of a good common school education which is our shame to anywhere fail of providing.

LEGISLATION.

The following Acts relating to education were passed at the January, 1887, session of the General Assembly.

CHAPTER XXIII.

An Act concerning Education.

The agents appointed by the State Board of Education, in accordance with the provisions of section three of chapter one hundred and twenty-four of the public acts of 1886 (page 624), may be directed by said board to enforce the provisions of law requiring the attendance of children in school and to perform any duties necessary or proper for the due execution of the duties and powers of the board.

CHAPTER CXIX.

An Act concerning the Property of Union School Districts.

SECTION 1. Whenever any town shall have assumed control of and appraised the school property as provided in section five, chapter six, title eleven of the general statutes, the town may, by vote in town meeting, extend the time in which the tax-payers of any district or districts shall be required to pay the excess of assessment over the appraised value of the property in such district for a period not exceeding five years; and all the property belonging to the school districts over which any town has assumed or shall assume control shall be vested in such town, to be held for school purposes so long as so required, and may be sold and deeded by said town when not required for school purposes.

SEC. 2. Whenever any town has voted or hereafter shall vote to assume control of all the schools, as provided in chapter six, title eleven of the general statutes, in case there is a joint dis-

trict the selectmen of the towns out of which such joint district is formed shall meet within ten days after receiving a written request for such meeting, signed by the first selectman of either of said towns, and appraise the school-house and other school property owned and used by said joint district, and determine what proportion is owned by the inhabitants of the towns residing in said district. If the several boards of selectmen shall not agree, the same shall be determined by a judge of the superior court upon application of either of the boards of selectmen, and his decision shall be final. The proportion belonging to the tax-payers of the town in which the property is not located, after deducting the indebtedness of the district, shall be paid to the treasurer of such town by the treasurer of the town in which such property is located, and the same shall be remitted to the tax-payers of said town.

CHAPTER CXXV.

An Act amending an Act concerning Public Schools and School Districts.

Section two, of chapter one hundred and six of the public acts of 1886 (page 611), is hereby amended by striking out from the second line of said section the word "July," and inserting in place thereof the word "June," so that said section will read: The school visitors and selectmen in each town shall meet as a joint board on the second Tuesday in June in each year for the election of officers and the transaction of any other business relating to schools.

CHAPTER CXXXVI.

An Act concerning the election of Women as School Committee.

No person shall be deemed ineligible to serve as a member of any board of education, board of school visitors, school committee, or district committee, or disqualified from holding such office by reason of sex.

CHAPTER CXLIV.

An Act relating to Text-Books in Reading.

SECTION 1. The board of education of any district or the board of school visitors or town school committee of any town

may, in addition to the text-books prescribed according to the provisions of section one, chapter four, title eleven of the general statutes, prescribe the use of other series of books to be used as text-books in reading; *provided*, such additional series are purchased by the district or town and the use thereof furnished free to the scholars.

SEC. 2. This act shall take effect from its passage.

CHAPTER CXLV.

An Act amending an Act relating to the Instruction of Children.

SECTION 1. Section two of chapter ninety of the public acts of 1885, is amended to read as follows: Children under thirteen years of age who have attended school twenty-four weeks of the preceding twelve months, and children between thirteen and fourteen who have attended school twelve weeks of the preceding twelve months, according to the requirements of chapter eighty (page 162) of the public acts of 1882, and children over fourteen years of age, shall not be subject to the requirements of the preceding section while lawfully employed to labor at home or elsewhere, but this section shall not be construed to exempt any child who is enrolled as a member of a school from any rule concerning irregularity of attendance which has been enacted or may be enacted by the town school committee, board of visitors, or board of education having control of the school.

SEC. 2. Section three of the same chapter is amended to read as follows: Each week's failure on the part of any person to comply with the provisions of the preceding sections shall be a distinct offence, punishable with a fine not exceeding five dollars. Said penalty shall not be incurred when it appears that the child is destitute of clothing suitable for attending school, and the parent or person having control of such child is unable to provide such clothing, or the mental or physical condition of such child is such as to render its instruction inexpedient or impracticable. Prosecutions under this act shall be conducted and judgment may be suspended as provided in section two of chapter eighty (page 162) of the public acts of 1882, and certificates shall be furnished and required as provided in section four of said act.

CHAPTER CXLVI.

An Act concerning Schools.

SECTION 1. Attendance of children at a school other than a public school shall not be regarded as compliance with the provisions of the laws of the State requiring parents and other persons having control of children to cause them to attend school, unless the teachers or persons having control of such school shall keep a register of attendance in form and manner prescribed by the State Board of Education for the public schools, which register shall at all times during school hours be open to the inspection of the secretary and agents of the State Board of Education, and shall make such reports and returns concerning the schools under their charge to the secretary of the State Board of Education as are required from the school visitors concerning the public schools, except that no report concerning expenses shall be required.

SEC. 2. It shall be the duty of the secretary of the State Board of Education to furnish to the teachers or persons having charge of any school, on their request, such registers and blanks for returns as may be necessary for compliance with the provisions of the preceding section.

The following Special Acts were passed:

[63.]

Incorporating the Wapping School Society of South Windsor.

Resolved by this Assembly:

SECTION 1. That so much of the territory of the town of South Windsor as constituted the Wapping School Society till said school society was abolished by act of the general assembly, 1855, to-wit: the territory of the sixth, seventh, eighth and ninth school districts of said town, and that part of the tenth school district which lies in said town and that part of the Oakland school district of the town of Manchester which lies in said town of South Windsor, with the inhabitants thereof, be and are hereby made and constituted a body politic and corporate for the purpose hereinafter named, to be known as the Wapping School Society of South Windsor.

SEC. 2. Said school society shall have power to establish and maintain a school of higher grade within its limits, and for such

purpose may purchase, receive, hold, and convey any property, build and repair school houses, lay taxes for the purpose herein named, and make contracts and adopt regulations for the management of such schools.

SEC. 3. The legal voters of said school society shall be the legal voters of said town of South Windsor residing in the districts and parts of districts above named, and the taxable property of said school society shall be the taxable property of the school districts and parts of school districts constituting said school society.

SEC. 4. The annual meeting of said school society shall be held in the month of June; at said meeting there shall be chosen by ballot a committee of three persons, residents of the society, a clerk, who shall be sworn, a treasurer and a collector, who shall hold their respective offices until the next annual meeting and until others are chosen and qualified. Said officers shall have the same duties and powers as are by law imposed on such officers of school districts.

SEC. 5. The school visitors of the town of South Windsor shall have the same duties and powers concerning the school of said school society as are imposed on school visitors concerning high schools by the statutes concerning education.

SEC. 6. The school visitors and selectmen of the town of South Windsor as a joint board shall at their meeting on the second Tuesday of July in each year, include in their estimate of the cost of the public schools of the town the cost of maintaining a school of higher grade in said school society and shall fix the amount which in their judgment will be sufficient to pay the wages of teachers, including their board and sufficient for fuel and incidental expenses of said school for at least thirty weeks, and shall notify the committee of said school society of the amount so fixed, and said amount shall be paid by the town to said school society in the same manner and on the same conditions as are by law prescribed for such payments to school districts; and the selectmen shall draw orders on the town treasurer for such payments in favor of said school society.

SEC. 7. The Treasurer of the State, upon the order of the secretary of the state board of education, shall make payments to said school society for the purchase of a school library, maps, globes, and any proper philosophical or chemical apparatus on the same terms and conditions as are provided by law for pay-

ments for such purposes to school districts and town high schools.

SEC. 8. The first meeting of said Wapping School Society shall be held on the tenth day of March, 1887;* notice of the time and place of said meeting shall be given by Seth Vinton, W. W. Green, and Oliver Clark of South Windsor, or any two of them, by posting a notice on the public sign post in said Wapping School Society at least five days before the time of said meeting, at which meeting officers shall be chosen, who shall hold their offices till the annual meeting of said school society to be held in June, 1888.

[84.]

Authorizing the West Middle School District of Hartford to issue Bonds.

Resolved by this Assembly:

SECTION 1. That the West Middle School District of the town of Hartford, by the name aforesaid, be and the said district hereby is authorized and empowered to issue bonds to an amount not exceeding the sum of one hundred and fifty thousand dollars, bearing interest at no greater rate than four *per cent.* per annum, payable semi-annually, the principal of said bonds to be payable at some certain time or times within twenty-five years from the date thereof; and the funds raised on said bonds shall be used and expended to pay the indebtedness of said district, and to take up and pay off the present outstanding bonds against said district, as the time of payment on the same shall mature, according to the terms and conditions thereof.

SEC. 2. The treasurer of said district is hereby authorized and empowered, with the avails of said new bonds, to pay at par, and cancel and redeem, all of the present outstanding bonds of said district which have become or shall hereafter become redeemable by the terms of their issue; and he shall give notice to all holders of said outstanding bonds of the calling in, proposed payment, redemption, and cancellation, and time of payment of the same, by publishing such notice in two newspapers published in the city of Hartford, for at least sixty days prior to the time fixed by him in such notice for the payment and redemption of said bonds; and, upon the publication of such notice, in the manner hereinbefore provided, the interest on said outstanding bonds shall cease, from

* See [170].

and after the day named, by said treasurer in said notice, for the payment of said bonds.

SEC. 3. Said West Middle School District shall, within four months after the passage of this resolution, at a legal meeting called for that purpose, prescribe and determine, subject to the foregoing limitations, the several and aggregate amounts of such bonds, the form, conditions, and reservations of the same, the rate of interest to be paid thereon, not exceeding the amount aforesaid, the times and places of paying said interest and principal, and the time and manner in which said bonds may be called in, redeemed, and interest thereon made to terminate, and the person or persons who shall execute the same for and on behalf of said district; and such bonds, when executed in the manner so prescribed, and issued and delivered by said district, or by its officer or officers, agent or agents, duly appointed by said district, shall be obligatory upon said district, and upon the inhabitants thereof, according to the tenor and purport of the same.

[103.]

An Act making an Appropriation toward Supplying the Deficiency in the Principal of the School Fund.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

The comptroller is hereby authorized and directed to draw his order on the treasurer in favor of the commissioner of the school fund for the sum of eight thousand dollars, towards supplying the deficiency in the principal of the school fund, and for the purposes of the same, to be paid out of any money in the treasury not otherwise appropriated.

[134.]

Validating votes passed at a meeting of the Sixth School District of the Town of Killingly.

Resolved by this Assembly:

That all votes passed at a meeting of the sixth school district of the town of Killingly, held on the sixth day of July, 1885, be and they are hereby validated and confirmed.

[153.]

Authorizing the Center School District of Norwalk to issue Bonds.

Resolved by this Assembly:

SECTION 1. That the Center School District of the town of Norwalk, in the county of Fairfield, is hereby authorized to issue bonds or notes to an amount not exceeding fifteen thousand dollars, payable at some time or times not exceeding twenty years from the date thereof, with or without an option to pay at an earlier date, bearing semi-annual interest at no greater rate than five per cent. per annum, the proceeds thereof to be applied exclusively in payment of the present floating indebtedness of said district.

SEC. 2. Said Center School District may prescribe, subject to the foregoing limitations, the several and aggregate amounts of said bonds or notes, their form, rate of interest, the times and places of paying the principal and the interest and the person or persons who shall execute the same for and in behalf of said district, and may provide for the negotiation of the same; and such bonds or notes, when executed in the manner so prescribed and issued and delivered by said district by its officers or agents duly authorized thereunto by said district, shall be obligatory on said district and upon the inhabitants thereof, according to the tenor and purport of the same.

[170.]

Concerning the Wapping School Society, of South Windsor.

Resolved by this Assembly:

That the first meeting of the Wapping School Society provided for in section eight of house joint resolution number thirty-nine, passed by the general assembly at the January session, 1887, to be held on the twentieth day of April, 1887. Notice of the time and place of said meeting shall be given by Seth Vinton, W. W. Green, and Oliver Clark of South Windsor, or any two of them, by posting a notice on the public sign post in said Wapping School Society at least five days before the time of said meeting, at which meeting officers shall be chosen who shall hold their offices till the annual meeting of said school society to be held in June, 1888.

[229.]

*Incorporating the Waterbury Industrial School.**Resolved by this Assembly:*

SECTION 1. That Lorinda Hall, Mary Cook, Martha S. Chase, Catherine Harrison, Susan Jacques, and Clara Allen, together with their associates and successors, be and they are hereby constituted a body politic and corporate by the name of the Waterbury Industrial School, and by that name shall have perpetual succession, and may sue and be sued, may have, use, and change a common seal, may receive, hold, and possess by gift, subscription, devise, or otherwise, any estate, real and personal, not exceeding in amount twenty-five thousand dollars, and may sell and convey the same.

SEC. 2. All property, real or personal, held by said association, and used for its own specific purposes, and from which no revenue is derived, shall be and remain exempt from taxation.

SEC. 3. Mary Cook, Martha S. Chase, and Catherine Harrison are hereby authorized to call the first meeting of said corporation, by such notice as they deem proper.

[275.]

*Validating Proceedings of School District No. 2 in the Town of Lebanon.**Resolved by this Assembly:*

That all acts done, votes passed, and taxes laid at a meeting of the legal voters of school district number two in the town of Lebanon, held on Saturday, April sixteenth, 1887, be and they are hereby ratified, validated, and confirmed, notwithstanding any irregularity that may have existed in such proceedings, and the tax then voted, of eighteen and one-half mills on the dollar, may be levied and collected, and the collector of said district is hereby authorized to collect said tax as soon as possible.

[278.]

*Annexing Premises of George H. Loomis, of Columbia, to the Fourth School District of Lebanon.**Resolved by this Assembly:*

That the real estate now owned by George H. Loomis, in the Chestnut Hill school district of Columbia, be and the same is

hereby annexed to and made a part of the Fourth school district of Lebanon, to which latter district the residents on said premises shall belong.

[282.]

Concerning Congressional Appropriations to Agricultural Experiment Stations.

Resolved by this Assembly:

SECTION 1. That this State accepts and assents to the provisions of the act of Congress, approved March second, 1887,* entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several States, under the provisions of an act approved July second, 1862, and of the acts supplementary thereto."

SEC. 2. The farm attached to the Storrs Agricultural School may be used as an experiment farm for the purposes specified in the act first mentioned; and the trustees of that school and their successors in office are hereby appointed to receive and expend one-half of such moneys as may come to this State, under the provisions of said act first mentioned.

SEC. 3. The board of control of the Connecticut Agricultural Experiment Station and its successors in office is hereby appointed to receive and expend one-half of such moneys as may come to this State under the provisions of said act first mentioned.

[295.]

Setting off Premises of Evelyn O. Pardee to Joint School District of Woodbridge and Bethany.

Resolved by this Assembly:

That the real estate now owned by Evelyn O. Pardee, in the first school district of the town of Bethany, bounded and described as follows: north, by land of Smith Terrell and by land of S. B. Todd; east, south, and west by highway; in amount fifteen acres more or less; be annexed to and made part of the joint school district maintained by the towns of Woodbridge and Bethany, to which district said land is adjacent, and to which joint district the residents on said premises shall belong.

* See pages 111-114.

[302.]

Annexing Premises of Jefferson H. Griffin to Fifth School District of Granby.

Resolved by this Assembly:

That the real estate now owned by Jefferson H. Griffin in the west school district in the town of Suffield be and the same is hereby annexed to and made a part of the fifth school district of East Granby, to which latter district the residents on said premises shall belong.

The following is from the statutes of the United States:

CHAPTER CCCXIV.

An act to establish agricultural experiment stations Mar. 2, 1887.
in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

That in order to aid in acquiring and diffusing Agricultural experiment stations. among the people of the United States useful and practical information on subjects connected

with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges or agricultural department of colleges in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an act approved July second, eighteen hundred and sixty-two, entitled "An

act donating public lands to the several States and Vol. 12, p. 508. Territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said act, a department to be known and designated as an "agricultural experiment station:" *Provided*, that in any State or Proviso.

Territory in which two such colleges have been or Division of appropriation. may be so established the appropriation hereinafter

made to such State or Territory shall be equally divided between such colleges, unless the legislature of such State or Territory shall otherwise direct.

Scope of re-
searches.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

Commissioner
of Agriculture
to advise, etc.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States Commissioner of Agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the governor of the State or Territory in which it is located a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said Commissioner of Agriculture, and to the Secretary of the Treasury of the United States.

Reports.

Bulletins.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the States or Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the station will permit.

Such bulletins or reports and the annual reports of said stations shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the Postmaster-General may from time to time prescribe.

To be post free.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of fifteen thousand dollars per annum is hereby appropriated to each State, to be especially provided for by Congress in the appropriations from year to year, and to each Territory entitled under the provisions of section eight of this act, out of any money in the Treasury proceeding from the sales of public lands, to be paid in equal quarterly payments, on the first day of January, April, July, and October in each year, to the treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, eighteen hundred and eighty-seven: *Provided, however,* That out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

Appropriations to be made from sales of public lands.

Provido.

Buildings.

SEC. 6. That whenever it shall appear to the Secretary of the Treasury from the annual statement of receipts and expenditures of any of said stations that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

Only amount necessary to be apportioned.

SEC. 7. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the States or Territories in which they are respectively located.

Legal status not affected.

SEC. 8. That in States having colleges entitled under this section to the benefits of this act and having also agricultural experiment stations established by law separate from said colleges, such States shall be authorized to apply such benefits to experiments at stations so established

Application to States having experiment stations.

by such States: and in case any State shall have established under the provisions of said act of July second aforesaid, an agricultural department or experimental station, in connection with any university, college, or institution not distinctively an agricultural college or school, and such State shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the legislature of such State may apply in whole or in part the appropriation by this act made, to such separate agricultural college, or school, and no legislature shall by contract express or implied disable itself from so doing.

Legislative assent necessary.

SEC. 9. That the grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purposes of said grants: *Provided*, That payment of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of its legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof duly certified to the Secretary of the Treasury.

Right to suspend, etc., reserved.

SEC. 10. Nothing in this act shall be held or construed as binding the United States to continue any payments from the Treasury to any or all the States or institutions mentioned in this act, but Congress may at any time amend, suspend, or repeal any or all the provisions of this act.

LAWS RELATING TO EDUCATION.

[Compilation of 1888, Chapter III.]

State Board of Education.

An Act to provide for the supervision of common schools passed by the General Assembly in 1838, constituted a Board of Commissioners of Common Schools, consisting of the Governor and Commissioner of the School Fund *ex officio* and one member from each county. The duties and powers of this Board are set out in the second section as follows:

“SECTION 2. The Board of Commissioners of Common Schools shall submit to the General Assembly an annual report, containing, together with an account of their own doings; first, a statement, as far as may be practicable, of the condition of every common school in the State, and of the means of popular education generally; second, such plans

for the improvement and better organization of the common schools, and all such matters relating to popular education, as they may deem expedient to communicate, and said Board may require of the school visitors of the several School Societies, semi-annually, returns of the condition of each common school within their limits; and they shall prescribe the form of all such returns, and the time when the same shall be completed, and transmit blank copies of the same, to the clerk of each School Society; and said Board may appoint their own Secretary, who shall devote his whole time, if required, under the direction of the Board, to ascertain the condition, increase the interest, and promote the usefulness of common schools."

Section 3 provides that returns and reports shall be made by the School Visitors of the societies and lodged with the clerks, and that registers of schools shall be kept. Section 4 requires the transmission of these returns to the Board of Commissioners, and Section 5 provides that societies' committees shall not certify to the Comptroller that the schools have been kept according to law unless the requirements of the two preceding sections have been complied with. Section 6 fixes the compensation of the Secretary of the Board.

At the first meeting held June 15 and 16, 1838, Henry Barnard was chosen Secretary. As an auxiliary to the work of the Board *The Common School Journal* was established.

During the four years of its existence, energetic and effective work was done in behalf of common schools by the Board and especially by the Secretary. At public meetings, and at schools for teachers, he was present to urge the need of trained teachers, better wages, larger and more regular attendance, longer terms, uniformity of books, improved school-houses, and faithful supervision.

Reports of the Board and of the Secretary were issued in 1839, 1840, 1841, 1842. From that of 1839 the following table showing the condition of schools fifty years ago, is taken:

ABSTRACT SHOWING THE CONDITION OF THE WINTER SCHOOLS IN THE SEVERAL COUNTIES, AND THE AGGREGATE FOR THE STATE.

[illegible]

In 1842 this Board of Commissioners was abolished, and its efficient work brought to an end. It had called the attention of the people of the State to deficiencies in their system and practice. It had begun to gather facts and figures which were not entirely pleasing to those who were willing to let things go on as they had been going on. Yielding to the pleas of economy and of interference, the Legislature stopped the work so happily begun, by abolishing the Board.

In 1845 the Commissioner of the School Fund was made *ex-officio* Superintendent of common schools. It was his duty to perform the duties previously imposed upon the Board of Commissioners, viz: to exercise a general supervision over the schools of the State, to collect information from school visitors, and to submit a yearly report.

Under this act, Hon. Seth P. Beers became Superintendent of common schools, and by him were written and presented to the Legislature the reports for 1846, 1847, 1848 and 1849.

In all these reports the Commissioner urged the separation of the functions of the School Fund Commissioner and the Superintendent of common schools, giving as an imperative reason the fact that no one could properly attend to the duties of both. There was, under his administration, much activity in educational matters.

In 1849, the Principal of the Normal School was made *ex officio* the Superintendent of common schools with the same duties and powers as previously attached to that office. On the opening of the school in May, 1850, Henry Barnard, formerly Secretary of the Board of Commissioners was chosen Principal by the Board of Trustees created by the Legislature. The reports of 1850, 1851, 1852, and 1853, were written by him, and contain, especially the last, very able and full accounts of the history, progress, and condition of the public schools. No report was printed for 1854.

In 1855, John D. Philbrick, as Principal of the Normal School, became Superintendent and the reports of 1855 and 1856 were written by him.

In 1856, David N. Camp succeeded Mr. Philbrick as Principal of the Normal School, and as Superintendent of common schools. The reports for 1857-1865, were written by him and

are full of wise and practical suggestions, and contain abundant and lasting evidence of his interest, activity and ability in directing the common schools.

In 1865, the feeling that the Principal of the Normal School should give his attention wholly to that institution and that the State Superintendent of Common Schools should give his attention wholly to the duties of that office, took form in the act which constituted the State Board of Education appointed by the Legislature.

This Act has been from time to time modified and in 1883 was wholly revised and passed in the form found below.

Tables exhibiting the changes and progress in public education since the organization of the Board in 1865, are given in this report under the following heads :

1. Receipts and expenses, pages 20, 22.
2. Scholars, including enumeration and attendance, page 27.
3. Teachers, page 47.
4. Schools, page 57.
5. School-houses and libraries, page 83.

<p><i>G. S. sec. 2095.</i></p> <p>Appointment of members.</p> <p>Term of office.</p> <p>Vacancies.</p>	<p>SEC. 4. There shall be a State Board of Education, composed of the Governor, Lieutenant-Governor, and four persons appointed by the General Assembly, two at each regular session, and selected one from each Congressional district, who shall hold office for four years, except when appointed to fill a vacancy occasioned otherwise than by the expiration of the term of office, in which case the person so appointed shall hold office only for the unexpired term of the person in whose place he may be appointed; all vacancies shall be filled by the General Assembly, but until so filled they may be filled by the Governor and Lieutenant-Governor.</p>
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The terms of office of members other than the Governor and Lieutenant-Governor begin on the first day of July following their appointment.—*General Statutes, sec. 427.*

The members are paid their necessary expenses.—*General Statutes, sec. 3706.*

The following table gives names of persons who have served as members of the Board and length of service :

*Ex-Officio.**Governors.*

William A. Buckingham,	1865-6
Joseph R. Hawley,	1866-7
James E. English,	1867-9, 1870-1
Marshall Jewell,	1869-70, 1871-3
Charles R. Ingersoll,	1873-7
Richard D. Hubbard,	1877-9
Charles B. Andrews,	1879-81
Hobart B. Bigelow,	1881-3
Thomas M. Waller,	1883-5
Henry B. Harrison,	1885-7
Phineas C. Lounsbury,	1887-

Lieutenant-Governors.

Roger Averill,	1865-6.
Oliver F. Winchester,	1866-7.
Ephraim H. Hyde,	1867-9.
Julius Hotchkiss,	1870-1.
Francis Wayland,	1869-70.
Morris Tyler,	1871-3.
George G. Sill,	1873-7.
Francis B. Loomis,	1877-9.
David Gallup,	1879-81.
William H. Bulkeley,	1881-3.
George G. Sumner,	1883-5.
Lorin A. Cooke,	1885-7.
James L. Howard,	1887-.

Appointed by the General Assembly.

Thomas A. Thacher, New Haven, 1865-1878.
 Elisha Carpenter, Hartford, 1865-1883.
 Alfred Coit, New London, 1865-1868.
 George M. Woodruff, Litchfield, 1865-1877.
 Henry M. Cleveland, Brooklyn, 1868-1872.
 William H. Potter, Groton, 1872-1880.
 James C. Loomis,* Bridgeport, July to Sept. 1877.
 Origen S. Seymour, Litchfield, 1877-1881.
 John W. Stedman, Norwich, 1880-1882.
 Storrs O. Seymour, Litchfield, 1881-1885.
 Anthony Ames, Danielsonville, 1882-.
 Francis A. Walker, New Haven, 1878-1882.
 William G. Sumner, New Haven, 1882-.
 Edward D. Robbins, Wethersfield, 1883-.
 George M. Carrington, West Winsted, 1885-.

SEC. 5. The board shall have general supervision and control of the educational interests of the State :

G. S. sec. 2096.
 Powers and duties.

May direct what books shall be used in all its schools, but shall not direct any book to be changed oftener than once in five years ;

Shall prescribe the form of registers to be kept in said schools, and the form of blanks and inquiries for the returns to be made by the various school boards and committees ;

Registers of three sizes are supplied to public and private schools, and a special form for evening schools.

For registers of private schools, see sec. 23.

* Died in Sept., 1877.

For duties of teachers in connection with registers, see sec. 151.

Returns to be made to State board of education, are :

1. Town reports of school visitors, sec. 77.
(a) including names of teachers and committees, sec. 79.
2. Town reports by town committees, sec. 129.
3. District reports by board of education, sec. 60.
4. Reports of evening schools, sec. 72.
5. Reports of private schools, sec. 23.

Blanks are supplied for all above returns and for reports of district committees to school visitors, sec. 147.

Shall ascertain and keep informed as to the condition and progress of the public schools in the State ;

And shall seek to improve the methods and promote the efficiency of teaching therein, by holding, at various convenient places Educational meetings. in the State, meetings of teachers and school officers, for the purpose of instructing in the best modes of administering, governing, and teaching public schools, and by such other means as they shall deem appropriate ; but the expenses incurred in such meetings shall Expenses. not exceed the sum of three thousand dollars in any year.

Other duties and powers of the board are :

1. To superintend Normal School, secs. 13-17.
2. To act as committee of the Connecticut Industrial School at Middletown, secs. 18-20.
3. To enforce law relating to employment of children, secs. 8, 24, 25.
(a) Shall appoint agents, sec. 8.
4. To enforce laws relating to attendance, secs. 7, 8.
(a) May appoint agents, secs. 7, 8.
5. To keep account of library money, sec. 11.

Said board shall, on or before the Monday after the first Wednesday in January in each year, submit to the Governor a report Annual report, 1887, ch. v, §28. containing a printed abstract of said returns, a detailed statement of the doings of the board, and an account of the condition of the public schools, of the amount and quality of instruction therein, and such other information as will apprise the General Assembly of the true condition, progress, and needs of public education ; and such annual reports shall be submitted to said Assembly at its regular sessions.

“All other reports now required to be made annually to the General Assembly shall hereafter be made to the governor at

the same period of the year as now required to be made to the General Assembly," *General Statutes, sec. 376.*

The number of reports annually printed and distributed is 3000, *General Statutes, sec. 331.*

SEC. 6. The board shall appoint a secretary, who shall, G. S. sec. 2097.
under its direction and control, perform such duties, in Secretary of the
the general supervision and control of the educational board, duties.
interests of the State, in visiting the public schools, and in the execu-
tion of the duties and powers of the board, as the board may prescribe.
The board shall have power to appoint a clerk, who shall Clerk.
assist the secretary, and perform such clerical and other Duties.
duties as the secretary may prescribe.

The secretary is, *ex officio*, a member of the visiting board of the Sheffield Scientific School, sec. 180.

Other duties and powers are :

1. To make return to Comptroller of delinquent towns and forfeitures, sec. 78.

2. To draw orders for library money, sec. 148.

3. To furnish blanks and registers to private schools, sec. 23.

4. To make estimates of appropriations. *General Statutes, sec. 380.*

5. To sign orders for State money drawn from treasury, sec. 12.

6. To inspect certificates of attendance, sec. 27, and registers of private schools, sec. 23.

7. To remit forfeitures, sec. 171.

For salary and expenses of the secretary and clerk, see *General Statutes, sec. 3706.*

The Secretaries of the Board have been the following :

Daniel C. Gilman, New Haven, 1865-7.

Birdsey G. Northrop, Clinton, 1867-83.

Charles D. Hine, Hartford, 1883-

The Clerks of the Board have been

John G. Baird, Hartford, 1868-1883.

Asahel J. Wright, Killingly, 1883-

SEC. 7. The board shall have power to appoint an agent G. S. sec. 2098.
to secure the due observance of the laws relating to the Agent.
instruction of children, and such agent shall make writ-
ten report of his work to the secretary semi-annually. Report.

Agent may inspect certificates of attendance, sec. 27, and registers of private schools, sec. 23.

Under this section the agents of the Board have been

Henry M. Cleveland, Brooklyn, 1869-71.

Giles Potter, New Haven, 1872-.

G. S. sec. 1755. SEC. 8. It shall be the duty of the State board of educa-
Enforcement of tion and the school visitors, boards of education, and
law relating to town committees of towns, to enforce sections 24 and 25
employment of of chapter iii; and for that purpose the State board of
children. education may appoint agents, under its supervision and
control, for terms of not more than one year, who shall be paid not to
exceed five dollars per day for time actually employed and
Compensation necessary expenses, and whose accounts shall be approved
of Agents. by said board and audited by the Comptroller.

The agents so appointed may be directed by said board to enforce the
provisions of the law requiring the attendance of children in school
and to perform any duties necessary or proper for the due
Duties. execution of the duties and powers of the board.

The action of the Board and reports of Agents under the
above section can be found on pages 38-45, of this Report.

G. S. sec. 2100. SEC. 9. The board of education shall prescribe the
Text-book on text-books to be used in teaching physiology and hygiene
physiology and as required by law, and shall prepare or cause to be pre-
hygiene, how pared a text-book, and, if desirable, charts for such teach-
supplied. ing, which text-book and charts shall be furnished to towns and school
districts, for the use of scholars in the public schools needing the same,
free of expense. The secretary shall take out a copyright
Copyright. for the State upon any text-book or chart prepared under
the authority of this section.

The action of the Board under this section and the number
of books distributed to the towns are stated on pages 6-8 and
85-88.

G. S. sec. 2222. SEC. 10. The State Board of Education may, upon pub-
Teachers' lic examination in such branches, and upon such terms as
certificates may it may prescribe, grant a certificate of qualifications to
be granted upon teach in any public school in the State, and may revoke
examination. the same. Such certificate may be accepted by any board
of School Visitors, or Board of Education, in lieu of any other exami-
nation.

This section places School Visitors, Town Committees and
Boards of Education under no legal obligation to accept a cer-
tificate issued by the State Board of Education. While the
certificate furnishes evidence of the highest character that the
holder is fit to teach, it is not and cannot be a general warrant
to teach in any school in the State. To give a State certificate

force in any town it must be accepted "in lieu of an examination" by the Town Board or Examining Committee, and it is incumbent upon the holder before beginning to teach to obtain this formal sanction of the local officers.

The main features of the plan adopted by the Board are as follows:

1. There are two grades of certificates, called Primary and Advanced. To obtain the lower, applicants must attain the required standard in the following branches, viz:

Reading, Writing, Spelling, Arithmetic, Geography, Grammar, History of the United States, and Physiology.

Papers are always presented in Singing and Drawing, which are optional. Success in these branches will be noted on certificate.

Questions in Theory and Practice will be found on all the papers.

To obtain higher grade, the required standard must be reached in the following branches, viz:

Algebra, Geometry, Book-keeping, Physics, Physical Geography, and Civil Government, and a choice between English Literature, General History and Chemistry.

2. In general it may be said that three-fourths of the questions must be answered with accuracy and fullness to entitle the candidate to a certificate. For purposes of ranking, the scale of 100 is used.

3. Candidates for the lower grade of certificate may at the same examination take any of the higher studies, and if successful in one or more, may have the result noted on lower grade certificate.

4. To assist committees in obtaining information, upon each certificate will appear the places where the holder has taught and the length of time in each.

5. In most cases, certificates will not be granted for a period longer than one year. It is impossible now to apply any other than the educational test, but it is the purpose of the Board to follow and observe the holders and judge of their fitness in other directions.

Certificates may be revoked at any time.

6. Renewals will be granted to those who teach successfully,

but it is the plan of the Board to require at the end of a certain definite period an examination in some branch in addition to those taken at the first examination.

7. Examinations will be held in and for any town upon invitation of the visitors. Applicants who succeed will receive State Certificates, and the record of all, whether successful or not, who are expecting or intending to teach in the town will be given to the Examining Committee. This record is given, however, only in the cases of those who could be legally called before the Town Board for examination.

Places of holding examinations and names of holders of certificates are given on pages 54-56.

G. S. sec. 2220.
Account of ap-
propriation for
school libraries
and apparatus.

SEC. 11. The State Board of Education shall keep an account of the money drawn and paid out for school libraries and philosophical apparatus pursuant to chapter x, and the Comptroller shall annually audit such account.

The annual appropriation is \$5000.

The amounts drawn since 1856 are given on page 217, and the report for year 1886-7 on page 206.

G. S. sec. 2099.
Expenses and
account; orders
how signed.

SEC. 12. The Board is authorized to expend such sum as may be necessary to perform the duties and execute the powers conferred upon it, and shall semi-annually file with the Comptroller a certified account of all State moneys received and expended during the preceding half year, which account shall be audited by the Comptroller. All orders for drawing any State money shall be signed by the Secretary and countersigned by a committee of the Board duly authorized thereto.

For fiscal year see General Statutes, sec. 375.

Disposition of balances, General Statutes, sec. 408.

Instruction, Employment and Attendance of Children.

[Compilation of 1888, Chapter III].

The persons and officers mentioned or referred to in this chapter who have duties and powers in connection with instruction, attendance and employment are as follows:

1. *Parents.* (a) To cause children between 8 and 16 to attend

(1) Regularly, sec. 21.

(2) In public schools, sec. 21.

(3) During terms and hours while public schools are in session, sec. 21.

(4) Excuses for failure are enumerated below :

(b) Must furnish employers with certificates of age, sec. 25.

(c) Penalty for (1) failure to cause children to attend, sec. 22.

(2) false statements, secs. 25, 28.

2. *Persons having the Care of Children.* All the provisions relating to parents apply.

3. *Employers.* (a) Must not employ children,

(1) Between 13 and 14 unless they have attended 60 days within previous 12 months, secs. 26, 21.

(2) Between 8 and 13 unless they have attended 120 days within previous 12 months, secs. 26, 21.

(b) Must not employ children under 13 in certain industries, sec. 25.

(c) Must obtain certificate of attendance and age, secs. 25, 27.

(d) Penalty for violation of (a) sec. 26.

(b) sec. 25.

3. *Teachers.* (a) Must keep registers, sec. 151.

(b) May furnish certificates of age, sec. 25.

(c) May furnish certificates of attendance, sec. 27.

4. *State Board of Education.* (a) May appoint an agent to enforce attendance, sec. 7.

(b) Must appoint agents to prevent illegal employment who may enforce attendance, sec. 8.

(c) Secretary and agents may inspect,

(1) Registers of private schools, sec. 23.

(2) Certificates of attendance, sec. 27.

5. *Selectmen.* (a) Must inspect families and bind out neglected children, sec. 30.

(b) May appoint committees, janitors, and others, to be special constables, sec. 38.

6. *School Visitors.* (a) Must enforce laws relating to employment, sec. 8.

(b) Must inspect factories and ascertain whether all provisions of this chapter are observed, sec. 29.

(c) May give certificate of attendance, sec. 27.

7. *Town Committees, Boards of Education.* Must enforce laws relating to employment. Sec. 8. In general the provisions relating to school visitors apply.

8. *District Committees.* May give certificates of attendance, sec. 27.

The following are the main provisions of the law :

G. S. sec. 2102.

Children to be educated.

SEC. 21. All parents and those who have the care of children shall bring them up in some honest and lawful calling or employment, and instruct them or cause them to be instructed in reading, spelling, writing, English grammar, geography, and arithmetic ;

Parents and guardians must send children to school.

And every parent or other person having control of any child over eight and under sixteen years of age, whose physical or mental condition is not such as to render its instruction inexpedient or impracticable, shall cause such child to attend a public day school regularly during the hours and terms while the public schools in the district wherein such child resides are in session, or to elsewhere receive thorough instruction during said hours and terms in the studies taught in said public schools.

1887, ch. clxv.

But children under thirteen years of age who have attended school twenty-four weeks of the preceding twelve months, and children between thirteen and fourteen who have attended school twelve weeks of the preceding twelve months, and children over fourteen years of age, shall not be subject to the requirements of this section while lawfully employed to labor at home or elsewhere.

But this section shall not be construed to exempt any child who is enrolled as a member of a school from any rule concerning irregularity of attendance which has been enacted or may be enacted by the town school committee, board of visitors, or board of education having control of the school.

G. S. sec. 2103.

Penalty.

1887, ch. cxlv.

SEC. 22. Each week's failure on the part of any person to comply with the provisions of the preceding section shall be a distinct offense, punishable with a fine not exceeding five dollars.

Said penalty shall not be incurred when it appears that the child is destitute of clothing suitable for attending school, and the parent or person having control of such child is unable to provide such clothing, or its mental or physical condition is such as to render its instruction inexpedient or impracticable.

All offenses concerning the same child shall be charged in separate counts, joined in one complaint. When a complaint contains more than one count the court may give sentence on one or more counts and suspend sentence on the remaining counts.

If at the end of twelve weeks from the date of the sentence it shall

appear that the child concerned has attended school regularly during that time, then judgment on such remaining counts shall not be executed.

Procedure.

SEC. 23. Attendance of children at a school other than a public school shall not be regarded as compliance with the provisions of the laws of the State requiring parents and other persons having control of children to cause them to attend school, unless the teachers or persons having control of such school shall keep a register of attendance in form and manner prescribed by the State board of education for the public schools, which register shall at all times during school hours be open to the inspection of the secretary and agents of the State board of education, and shall make such reports and returns concerning the school under their charge to the secretary of the State board of education as are required from the school visitors concerning the public schools, except that no report concerning expenses shall be required; and it shall be the duty of the secretary of the State board of education to furnish to the teachers or persons having charge of any school, on their request, such registers and blanks for returns as may be necessary, for compliance with the provisions of this section.

G. S. sec. 2104.
1887, ch. cxlvi.
Attendance at
private schools,
when sufficient.

Register.

SEC. 24. No child under thirteen years of age shall be employed in any mechanical, mercantile, or manufacturing establishment.

G. S. sec. 1753.
Employment of
children under
13.

SEC. 25. Any person acting for himself, or as agent in any way whatever of any mechanical, mercantile, or manufacturing establishment who shall employ or authorize or permit to be employed in such establishment any child, in violation of the preceding section, shall be fined not more than sixty dollars, and every week of such illegal employment shall be a distinct offense, provided that no person shall be punished under this section for the employment of any child when at the time of such employment the employer shall demand and thereafter during such employment keep on file the certificate of any town clerk, or of the teacher of the school where such child last attended, stating that such child is more than thirteen years of age, or a like certificate of the parent or guardian of such child in such cases only where there is no record of the child's age in the office of the town clerk, and such child has not attended school in this State. Any parent or guardian who shall sign any certificate that his child or ward is more than thirteen years of age when in fact such child or ward is under thirteen years of age shall be fined not more than sixty dollars.

G. S. sec. 1754.
Penalty.

Certificates.

SEC. 26. No child under fourteen years of age, who has resided in the United States nine months, shall be employed to labor, unless such child shall have attended a day school in which instruction has been regularly and thoroughly given in the branches of education required in the public schools during at least twelve weeks, or sixty full school days of the twelve months next preceding any month in

G. S. sec. 2105.
Employment of
child under 14,
who has not at-
tended legal
time.

which such child shall be so employed, nor unless six weeks at least of this attendance have been consecutive. Any person who shall employ a child contrary to the provisions of this section shall be fined not more than sixty dollars.

G. S. sec. 2106.
Certificate of
school attend-
ance.

SEC. 27. It shall be the duty of every parent, or other person having control of a child under fourteen years of age, to furnish the employer of such child a certificate signed by the teacher, school visitor, or committee of the school which the child attended, showing that the child has attended school as required by the preceding section. The employer of any such child shall require such certificate, shall keep it at his place of business during the time the child is in his employment, and shall show the same when demanded, during the usual business hours, to any school visitor of the town where the child is employed, or to the secretary or agent of the State board of education. Said certificate shall be evidence that the child has attended school as the law requires.

G. S. sec. 2107.
Penalty for
false statement.

SEC. 28. Any parent or any person having control of a child, who, with intent to evade the provisions of this chapter, shall make any false statement concerning the age of such child, or the time such child has resided in the United States, or shall instruct such child to make any such false statement, shall be fined not more than seven dollars, or be imprisoned not more than thirty days.

G. S. sec. 2108.
Inspection of
factories by
school visitors.

SEC. 29. The school visitors in every town shall, once or more in every year, examine into the situation of the children employed in all its manufacturing establishments, and ascertain whether all the provisions of this chapter are duly observed, and report all violations thereof to one of the grand jurors of the town.

G. S. sec. 2109.
Selectmen may
bind out neg-
lected children.

SEC. 30. The selectmen, in every town, shall inspect the conduct of the heads of families, and if they find any who neglect the education of the children under their care, may admonish them to attend to their duty; and if they continue negligent, whereby the children grow rude, stubborn, and unruly, they shall, with the advice of a justice of the peace, take such children from those who have the charge of them, and bind them out to some proper master, or to some charitable institution or society incorporated in this State for the care and instruction of such children, males till twenty-one, and females till eighteen years of age, that they may be properly educated, and brought up in some lawful calling.

Attendance and employment involve the following points:

- (1) Who may attend.
- (2) Who must attend.
- (3) Possible attendances.
- (4) How long and when children must attend.

(5) The recognized excuses for non-attendance. Under this head will be found,

(a) When children can legally be employed.

(b) The penalties for employment and for non-attendance.

I. *Who may attend.* "Schools shall be open to all children over four years of age in the respective districts without discrimination on account of race or color." But children under five may be excluded "whenever in their (the School Visitors') judgment the interest of the school will be thereby promoted."

"Children" would probably comprise legal infants. Whether this be so or not there is no legal ground for rejecting from schools persons over 16. Boards of Visitors may make rules relating to such matters.

II. *Who must attend.* "Every parent or other person having control of any child over 8 and under 16 years of age, shall cause such child to attend."

The persons who must attend, unless legally excused, are all children over 8 and under 16 years of age. This is the limit of compulsory schooling in the State.

III. *Possible Attendances.* "Public schools shall be maintained for at least thirty-six weeks in each year, in every school district in which the number of persons between four and sixteen years of age at the last preceding enumeration was one hundred or more;

And for at least thirty weeks in every district in which the number of persons between said ages was twenty-four or more;

And for at least twenty-four weeks in the other districts" Sec. 40.

"School committees shall see that good public schools of the different grades are maintained in the various parts of the town, for not less than the same length of time as would be required had no such consolidation been made." Sec. 129.

IV. *How long and when children must attend.* Parents must cause their children to attend * * *

(a) "Regularly," sec. 21.

(b) "During the hours and terms while public schools in the district wherein such child resides are in session," sec. 21.

Instruction at home and attendance at private school are recognized excuses for non-attendance in public schools as stated below; but this instruction at home or in a private school must be:

(a) During the hours, sec. 21.

(b) During the terms, sec. 21.

(c) And in the studies taught in the public schools, sec. 21.

There should be no misunderstanding with regard to these requirements. Instruction elsewhere than in a public school cannot be a cover for no instruction, or for such instruction as the caprice or convenience of parents or others may determine. Without question instruction must be in the English language.

Parents can incur the penalty of Section 22 only for such weeks as the schools are in session.

The prescribed studies are mentioned in the first paragraph of section 21, and in section 40.

V. *Recognized Excuses*.—The excuses recognized under the law are.

1. Thorough instruction elsewhere during the hours and terms of the public schools and in the studies taught in the public schools, sec. 21.

This would admit:

(a) Instruction at home.

(b) Instruction in private schools. Private schools however must conform to the requirements of Sec. 23, or attendance will not be regarded as compliance with the provisions of sec. 21.

2. Such physical or mental condition as renders instruction inexpedient or impracticable, sec. 21, 22.

3. Destitution of clothing and inability of parents to provide the same. The burden of proving such destitution and inability is upon the parent, sec. 22.

4. The most important recognized excuse for non-attendance is employment. The law on this subject may be summarized as follows.

(a) All over 14 may be employed.

(b) Children between 13 and 14 may be employed if they have attended school 60 days within the preceding 12 months, sec. 21.

- (c) Children under 13 and over 8 may be employed if they have attended 120 days within the previous school year, sec. 21.

But children under 13 cannot be employed in mechanical, manufacturing or mercantile establishments at any time.

- (d) Legal evidence of compliance with above requirements is:

(1.) Certificates of attendance, sec. 27.

(2.) Certificates of age, sec. 25.

The following are forms of certificates:

ATTENDANCE CERTIFICATE.

Town, _____ District, _____
 Date, _____
This Certifies, That it appears from the Register of the
 Department of the _____ School, in the
 District, for the _____ Term of 188 , that

(Name of scholar.)

age _____ on the _____ day of _____ 188 , has attended
 school *sixty** days since the _____ day of _____ 188 ,
 and that six weeks of this attendance were consecutive.

Signed,

Teacher,
 (Visitor, or Committee).

This Certificate should be signed by a
 Teacher, School Visitor, or Committee.

*or one hundred and twenty.

TOWN CLERK'S CERTIFICATE OF AGE.

This Certifies, That it appears of record in this office that
 was born in this Town on the _____ day of _____ 18 , and that h
 parents' names were _____ and _____

Attest,

Town Clerk.

Dated at _____ this _____ day of _____ 18

Law on other side.

TEACHER'S CERTIFICATE OF AGE.

This Certifies, That it appears in the Register of the _____ School in the
 District of the Town of _____ for the _____ Term of 18
 that _____ was _____ years and _____ months old on the
 day of _____ 18

Signed

Dated at _____ on this _____ day of _____ 18

This Certificate is a protection to Employers *only* when the Town Clerk's Certificate of age cannot be obtained.

Law on other side.

SEC. 35. Officers other than policemen of cities shall receive for making the arrests required by the two preceding sections, such fees, not exceeding the fees allowed by law for making other arrests, as may be allowed by the selectmen of the town in which such arrests are made; but unless a warrant was issued by a judge of the criminal or police court, or by a justice of the peace, the officer shall, before receiving his fees, present to the selectmen of the town a written statement showing the name of each boy arrested, the day on which the arrest was made, and if the boy was returned to school, the name or number of the school to which he was so returned.

G. S. sec. 2114.
Fees of truant officers.

SEC. 36. In all cases arising under the provisions of the three preceding sections, a proper warrant shall be issued by the judge of the criminal court of the city, or by a justice of the peace in the borough or town, where such arrest is made; and the father, if living, or if not, the mother or guardian of such boy, shall be notified, if such parent or guardian can be found, on the day and time of hearing. The fees of the judge or justice shall be two dollars for such hearing; and all expenses shall be paid by the city, borough, or town in and for which he exercises such jurisdiction.

G. S. sec. 2115.
Warrant and hearing.

Fees.

SEC. 37. After the hearing in any such case, such judge or justice of the peace may, at his discretion, indefinitely suspend the rendition of judgment.

G. S. sec. 2116.
Suspending judgment.

SEC. 38. The selectmen of any town may appoint committees of school districts and janitors of school buildings, and other persons on nomination by the school visitors of the town or board of education of an incorporated school district, special constables. Said constables shall have power in the town in which they reside, and in adjoining towns when offenders have escaped thither, to arrest for truancy and other causes named in section 33, and for disturbance of schools and school meetings and damage to school property, and to serve criminal process in all such cases.

G. S. sec. 70.
Appointment of district committee or janitor as special constables.

SEC. 39. Upon the request of the parent or guardian of any girl between eight and sixteen years of age, a warrant may be issued for her arrest, in the same manner and on the same conditions as is provided in section 34-37 with respect to boys; and thereupon the same proceedings may be had, as are above provided, except that said girls may be committed to the Connecticut Industrial School for Girls.

G. S. sec. 2117.
Vagrant girls may be committed to Industrial School.

Town Deposit Fund.

[Compilation of 1888, Chapter XIV.]

An Act to regulate the deposits of the public money was passed by Congress and approved June 23, 1836. The provisions relating to the Town Deposit Fund are as follows :

And be it further enacted, That the money which shall be in the Treasury of the United States, on the first day of January, eighteen hundred and thirty-seven, reserving the sum of five millions of dollars, shall be deposited with such of the several States, in proportion to their respective representation in the Senate and House of Representatives of the United States, as shall, by law, authorize their Treasurers, or other competent authorities to receive the same on the terms hereinafter specified; and the Secretary of the Treasury shall deliver the same to such Treasurers, or other competent authorities, on receiving certificates of deposits therefor, signed by such competent authorities, in such form as may be prescribed by the Secretary aforesaid; which certificates shall express the usual and legal obligations, and pledge the faith of the State, for the safe keeping and repayment thereof, and shall pledge the faith of the States receiving the same, to pay the said moneys, and every part thereof, from time to time, whenever the same shall be required, by the Secretary of the Treasury, for the purpose of defraying any wants of the public treasury, beyond the amount of the five millions aforesaid; *Provided*, That if any State declines to receive its proportion of the surplus aforesaid, on the terms before named, the same shall be deposited with the other States, agreeing to accept the same on deposit in the proportion aforesaid:

And provided further, That when said money, or any part thereof, shall be wanted by the said Secretary, to meet appropriations by law, the same shall be called for, in rateable proportions, within one year. as nearly as conveniently may be, from the different States, with which the same is deposited, and shall not be called for, in sums exceeding ten thousand dollars, from any one State, in any one month, without previous notice of thirty days, for every additional sum of twenty thousand dollars, which may at any time be required. Sec. 13.

And be it further enacted, That the said deposits shall be made with the said States in the following proportions, and at the following times, to wit: one quarter part on the first day of January, eighteen hundred and thirty-seven, or as soon thereafter as may be; one quarter part on the first day of April, one quarter part on the first day of July, and one quarter part on the first day of October, all in the same year. Sec. 14.

In the same year the General Assembly of this State passed an act authorizing the Treasurer of the State to receive from

the Secretary of the Treasury of the United States, for deposit in this State, the share or proportion of the public moneys of the United States, which this State was entitled to receive, in pursuance of the above Act of Congress. The Treasurer was authorized to pledge the faith of the State for the safe keeping and repayment of the fund.

It was provided that this money should be deposited with the several towns in proportion to their respective populations, upon condition that the money should be paid into the State Treasury whenever the payment thereof should be required by any act of the General Assembly, or by proclamation of the Governor, for the purpose of returning the same to the Treasury of the United States. It was further provided that no payment should be made to any town until the Treasurer of the State had received a copy of a vote or resolution passed in town meeting, giving the consent of the town to receipt for its proportion, on the terms and conditions specified.

The conditions on which any town might receive its proportionable share of the money, were as follows :

“First, That such town keep and preserve the money as a deposit, and in trust for the State.

Secondly, That it appropriate the entire income or interest thereof, annually, at least one-half thereof for the promotion of education in the common schools in such town, in such manner and proportions as such town may direct ; and the remainder for the purpose of defraying the ordinary expenses of such town.

Thirdly, That it make good each and every deficiency in the amount received, should any loss occur through mismanagement or any other cause.

Fourthly, And that it repay into the State treasury the whole amount received therefrom of said money, or such part thereof as may be required, whenever the same shall be called for in the manner specified in the first section of this act.”

The section directing how the interest should be appropriated was as follows :

“SECTION 10. The interest or income arising from the said town deposit fund, shall in each town be annually appropriated, not less than one-half thereof, for the promotion of education in the common schools in such town, in such manner and proportions as such town may direct and the remainder for the purpose of defraying the ordinary expenses of such town, and for no other purposes. The legal voters in each town,

at an annual town meeting, or at any special town meeting legally warned for that purpose, may decide whether the said remainder of said income, derived from said fund, or any part thereof shall be appropriated in like manner for the support of common schools in such town, or whether the same or any part thereof shall be appropriated for the purpose of defraying the ordinary expenses of such town, or to both of said objects, as may be deemed most beneficial to the interests of such town."

In 1855 the act was passed requiring the whole income to be devoted to common schools.

The manner in which this money should be loaned and the methods of its management were very full and specific.

At first it was provided that loans should be made only upon notes secured by mortgage upon real estate of double the value of the loan; the expense of mortgage deed and recording were to be defrayed by the borrower, and the fund was to be exempt from any expense of management or expense of any kind relating to its concerns. This stringent provision remained until 1846, when bank stock and bonds of any city were added to the securities which might be bought. In 1859 all the earlier restrictions were removed and money might be invested in "the bonds or securities of any city or town" in the State. The amount originally turned over to the State and distributed to the towns was \$763,661.83.

The following table gives the amounts in possession of each town in 1847, and the amounts reported in December, 1887, with the present investment of the same:

HARTFORD COUNTY.

TOWNS.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.	How Invested.
{ Hartford, -----	{ \$25,141.43	{ \$23,481.43	Notes of Town of Hartford.
{ West Hartford, -----	{ -----	{ 1,660.00	Loaned to Town of West Hartford.
{ Avon, -----	{ 2,632.54	{ 2,338.04	\$1,570.04 loaned to Town of Avon; bank stock, \$768.
{ Berlin, -----	{ 7,800.04	{ 2,941.94	Loaned to Town of Berlin.
{ New Britain, -----	{ -----	{ 2,958.42	Loaned to Town of New Britain.
{ Bristol, -----	{ 4,384.16	{ 4,384.16	Loaned on notes secured by mortgages.
{ Burlington, -----	{ 3,341.41	{ 3,341.41	\$2,315.18 loaned to Town of Burlington; \$1,026.23 loaned on mortgages.
{ Canton, -----	{ 3,690.71	{ 3,690.71	Loaned to Town of Canton.
{ East Hartford, -----	{ 5,745.48	{ 5,745.38	Loaned to Town of East Hartford.
{ East Windsor, -----	{ 9,081.64	{ 4,721.98	\$3,240.98 loaned to town; the remainder to individuals.
{ South Windsor, -----	{ -----	{ 4,200.21	\$4,159.21 loaned to town. Cash \$50.
{ Enfield, -----	{ 5,467.99	{ 5,484.56	Loaned to town.
{ Plainville, -----	{ 4,882.41	{ 4,882.41	Loaned to town.
{ Farmington, -----	{ -----	{ -----	Loaned to individuals.
{ Glastonbury, -----	{ 7,653.03	{ 7,653.03	Loaned to Town of Granby.
{ Granby, -----	{ 4,935.42	{ 4,935.42	In State Treasury.
{ East Granby, -----	{ 2,083.84	{ 2,083.84	\$2,968.94 has been used by town; \$167 invested in mortgage.
{ Hartland, -----	{ 3,135.94	{ 3,135.94	\$4,342.14 loaned and secured by mortgage on land and buildings, \$100 on hand.
{ Manchester, -----	{ 4,947.70	{ 4,442.14	\$1,253 loaned to town, \$555.12 secured on real estate.
{ Marlborough, -----	{ 1,868.12	{ 1,868.12	Loaned to individuals, \$1,850; to State savings bank, \$1,308.
{ Simsbury, -----	{ 5,794.27	{ 3,158.00	Invested in bank stock, \$3,200; remainder loaned to individuals and savings bank.
{ Southington, -----	{ 3,736.02	{ 4,736.04	\$4,094.86 loaned to town; balance to individuals.
{ Suffield, -----	{ 6,908.82	{ 7,294.86	In State Treasury.
{ Wethersfield, -----	{ 6,792.59	{ 3,577.04	Loaned on notes secured by mortgage.
{ Rocky Hill, -----	{ 2,953.20	{ 2,953.20	Invested mainly in mortgages on real estate.
{ Newington, -----	{ -----	{ 1,496.24	Loaned to individuals and secured by mortgages on land and buildings.
{ Windsor, -----	{ 5,231.71	{ 3,331.64	\$1,300 invested in mortgages on real estate, \$525 in savings banks.
{ Bloomfield, -----	{ 3,938.34	{ 4,927.89	
{ Windsor Locks, -----	{ -----	{ 1,825.00	
Totals, -----	\$130,197.41	\$ 126,298.65	

NEW HAVEN COUNTY

TOWNS.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.	How Invested.
New Haven	\$27,424.67	\$29,690.90	Invested in mortgage notes, \$19,690.90; loaned to Town of New Haven, \$10,000.
{ Branford	3,184.73	3,184.73	Invested in public buildings.
{ North Branford	2,804.64	2,804.64	In State Treasury.
Cheshire	4,571.63	4,571.25	\$3,574.50 loaned to Town of Cheshire; \$999.75 in bank.
{ Derby	5,806.46	4,018.30	Loaned to Town of Derby.
{ Seymour		1,826.16	Loaned to Town of Seymour.
East Haven	3,156.40	937.50	\$837.50 loaned and secured by mortgage; \$100 loaned to Town of East Haven.
Guilford	6,020.10	6,020.19	\$2,762.30 loaned to town, and the remainder to individuals.
Hamden	4,278.85	4,278.85	Loaned to Town of Hamden.
Madison	4,646.13	4,646.13	\$1,500 invested in town notes, the remainder in secured notes.
Meriden	4,386.72	4,386.72	Loaned to Town of Meriden.
Middlebury	2,095.77	2,100.00	A part is loaned to Town of Middlebury, the rest is loaned on real estate.
Milford	5,794.17	3,394.17	Invested in town bonds, \$1,100; deposited in savings banks, \$1,553.17; in notes, \$541.
North Haven	3,292.62	3,292.62	Loaned to Town of North Haven.
Orange	4,592.92	3,443.80	\$3,319.80 loaned to Town of Orange; \$124 on notes of individuals.
Oxford	4,527.98	4,169.00	Loaned to Town of Oxford in part; most of remainder in mortgages; \$100 cannot be collected.
Prospect	1,671.99	1,671.99	In a mortgage security and note of Town of Prospect.
Southbury	3,998.91	3,998.91	In State Treasury.
Wallingford	6,210.23	6,210.23	\$5,710.23 has been used by the Town; \$500 in poor mortgages.
{ Waterbury	7,884.78	5,977.51	Loaned to Town of Waterbury, \$2,956.79 deposited in savings banks, \$3,020.72.
{ Naugatuck		1,240.00	Loaned on secured notes.
Wolcott	2,165.11	2,165.11	Invested in promissory notes secured by mortgages on real estate.
{ Woodbridge	2,493.86	2,493.86	Nearly all loaned to Town of Woodbridge.
{ Bethany	2,870.38	1,626.72	Invested in mortgages on real estate.
{ Beacon Falls		1,748.25	\$1,348.25 loaned to town; \$400 in savings bank.
Totals	\$113,885.23	\$109,900.54	

NEW LONDON COUNTY.

TOWNS.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.	How Invested.
New London	\$11,187.67	\$11,187.67	In savings banks, \$8,337.67; in mortgage loans, \$2,850.
Norwich	13,301.41	13,301.41	Loaned to Town of Norwich.
Bozrah	2,771.87	2,771.84	Loaned to Town of Bozrah.
Colchester	5,324.16	4,325.00	Town orders and loans on real estate.
Franklin	3,066.60	2,124.60	Loaned to Town of Franklin.
Sprague	-----	2,507.54	Loaned to Town of Sprague.
Griswold	5,681.17	5,681.09	Loaned to Town of Griswold.
Groton	6,839.48	6,839.48	Loaned to Town of Groton.
Ledyard	5,501.37	5,508.00	Invested in bank stock, \$1,000; town orders, \$1,008; in Ledyard and town debt bonds, \$3,500.
Lebanon	6,562.09	6,562.09	\$5,117.09 loaned to Town of Lebanon; on notes secured by mortgage, \$1,395; in sav. bank, \$50.
Lisbon	2,094.68	1,385.81	Loaned to Town of Lisbon.
Lyme	7,636.69	3,715.81	Loaned to Town of Lyme.
East Lyme	3,451.29	3,450.00	Loaned to Town of East Lyme.
Montville	5,064.77	3,994.09	\$3,620.09 loaned to Town of Old Lyme; \$275 to individuals.
North Stonington	7,204.07	5,064.77	Was used by the Town to pay indebtedness.
Preston	4,969.72	7,013.00	\$4,613 loaned to Town of North Stonington; bank stock, \$1,300; R. R. bonds, \$2,000.
Salem	2,463.04	4,969.72	Invested in Town Orders.
Stonington	8,734.90	8,463.04	Loaned to Town of Salem.
Waterford	5,763.44	8,734.91	Loaned to Town of Stonington.
Voluntown	3,349.12	5,763.44	Loaned to Town of Waterford.
Totals	\$111,977.60	\$111,601.61	A part is invested in mortgages, the remainder in notes of Town of Voluntown.

FAIRFIELD COUNTY.

TOWNS.	Town Deposit Fund, 1847.	Town Deposit Fund, 1887.	How Invested.
Bridgeport.....	\$7,191.33	\$7,191.33	Loaned to Town of Bridgeport.
{ Danbury	11,072.09	8,767.36	Loaned to Town of Danbury.
{ Bethel	---	2,647.00	Loaned to Town of Bethel.
Brookfield.....	3,223.26	3,223.26	Loaned to Town of Brookfield.
Darien.....	3,112.84	3,162.00	\$600 loaned to town; \$2,562 secured by mortgages.
{ Fairfield.....	7,697.32	7,990.00	Loaned to Town of Fairfield, \$7,244; in bank stock, \$500; loaned on note, \$156.
{ Westport	5,669.22	5,669.08	Loaned to Town of Westport.
Greenwich.....	9,702.24	9,760.24	\$7,210.24 loaned to Town of Greenwich; \$2,550 invested in mortgages.
Huntington.....	3,521.19	3,521.19	Loaned to Town of Huntington.
Monroe.....	3,909.02	4,606.00	Bank stock, \$600; mortgage on farm, \$1,000; loaned to Town of Monroe, \$3,006.
New Canaan.....	4,690.05	4,790.00	\$4,200 loaned to Town of New Canaan; \$500 loaned on bond and mortgage.
New Fairfield.....	2,411.68	2,500.00	\$1,120 loaned to town; \$980 to individuals; \$400 invested in real estate.
Newtown.....	7,951.57	8,851.57	Bank stock, \$3,000; savings banks, \$4,951.57.
Norwalk.....	7,877.09	7,877.09	Loaned to Town of Norwalk.
Redding.....	4,330.20	4,323.00	Loaned to Town of Redding, \$4,223; invested in mortgage, \$100.
Ridgefield.....	5,920.01	5,760.00	Loaned to Town of Ridgefield.
Sherman.....	2,432.23	2,432.23	Loaned to Town of Sherman.
Stamford.....	9,520.83	9,520.83	\$7,300 loaned to Town of Stamford; \$1,800 loaned on mortgages; \$420.83 in savings bank.
Stratford.....	4,658.97	4,659.21	\$3,359.31 loaned to town; \$1,300 to individuals.
Trumbull.....	3,199.88	3,389.88	\$2,300 in bonds and mortgages; \$1,089.88 loaned to Town of Trumbull.
{ Weston.....	7,106.59	4,763.69	Loaned to Town of Weston.
{ Easton.....	---	2,323.00	Loaned to Town of Easton.
Wilton.....	5,385.81	6,000.00	Deposited in savings banks.
Totals.....	\$120,583.42	\$123,508.96	

WINDHAM COUNTY.

TOWNS.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.	How Invested.
Brooklyn..... { Ashford..... { Eastford..... Canterbury..... Chaplin..... Hampton..... { Killingly..... { Putnam..... Plainfield..... Pomfret..... Sterling..... Thompson.....	\$3,726.66 { 6,634.34 { 4,828.87 2,072.66 2,827.74 8,365.08 5,878.93 5,380.17 3,184.73 8,680.97	\$3,750.00 3,673.33 3,161.01 2,413.28 2,072.66 2,828.28 7,697.05 4,317.34 6,184.00 4,544.66 3,184.73 5,572.92	Loaned to Town of Brooklyn. \$2,315.43 loaned to town, the remainder secured by mortgages. Loaned to town. Loaned to Town of Canterbury. Loaned to town, \$1,547.66; bank stock; \$525. \$888 loaned to Town of Hampton; \$1,940 invested in mortgages; cash, 28 c. Loaned to Town of Killingly. \$4,000 invested in town farm. \$317.34 in town treasury. \$3,884 loaned to Town of Plainfield; \$1,700 in mortgages on real estate; \$600 in personal note. Loaned to Town of Pomfret. In bank stock, \$2,100; in savings bank, \$929.62; remainder invested in town farm and town house and pays no income. \$5,800.60 loaned to Town of Windham. Loaned to Town of Scotland. A part is invested in bonds, and another part is loaned to Town of Woodstock; the rest is deposited in savings banks.
Totals	\$66,494.85	\$64,077.00	

LITCHFIELD COUNTY.

TOWNS.	Town Deposit Fund, 1847.	Town Deposit Fund, 1887.	How invested.
{ Litchfield, ----- { Morris, ----- Barkhamsted, ----- Bethlehem, ----- { Canaan, ----- { North Canaan, ----- Colebrook, ----- Cornwall, ----- Goshen, -----	\$11,444.70 ----- 4,404.69 2,326.92 5,909.74 ----- 3,421.04 4,402.14 4,453.50	\$8,714.94 2,217.00 4,404.00 2,326.92 3,000.17 2,909.60 3,471.19 3,702.14 4,453.50	Loaned to Town of Litchfield. Invested in town bonds. Loaned to Town of Barkhamsted. \$811 secured by mortgage on real estate; the remainder loaned to Town of Bethlehem. \$3,000.17 loaned to Town of Canaan. Loaned to Town of North Canaan. \$2,806.58 invested in town notes, remainder in notes of individuals. \$3,702.14 loaned to Town of Cornwall. Invested in mortgage, \$1,000; loaned to Town of Goshen, \$2,784.30; in real estate, \$342; cash, \$327.20.
Harwinton, ----- Kent, ----- New Hartford, ----- { New Milford, ----- { Bridgewater, ----- Norfolk, ----- { Plymouth, ----- { Thomaston, ----- Roxbury, ----- Salisbury, ----- Sharon, ----- Torrington, ----- Warren, ----- Washington, ----- Watertown, ----- Winchester, ----- Woodbury, -----	3,893.60 5,139.24 4,535.68 10,219.41 ----- 3,813.98 5,301.05 ----- 2,881.69 6,626.22 6,716.19 4,240.33 2,532.38 4,163.28 3,852.50 4,575.68 5,252.24	Loaned to Town of Harwinton. Loaned to Town of Kent. \$4,035.70 loaned to Town of New Hartford, \$500 on notes. Loaned to Town of New Milford. Loaned to Town of Bridgewater. Loaned to Town of Norfolk. Invested in town orders, \$2,226.53; in secured notes, \$424. Loaned to Town of Thomaston. \$420 invested in notes secured by mortgages; the remainder loaned to town. \$3,313.58 secured by mortgage; \$459.88 deposited in savings bank. Loaned to Town of Sharon. Loaned to Town of Torrington. Loaned to Town of Warren. Loaned to Town of Washington. Bank stock, \$800; loaned to Town of Watertown, \$3,152.50 Loaned to Town of Winchester. Railroad bonds, \$3,000, guaranteed; mortgage loans, \$351.20; bonds, \$1,900; cash, \$1.04.	
Totals, -----	\$110,106.20	\$106,808.86	

MIDDLESEX COUNTY.

TOWNS.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.	How Invested.
{ Middletown -----	{ \$7,700.97	{ \$3,574.17	Loaned to Town of Middletown.
{ Cromwell -----	{ -----	{ 2,618.56	Loaned to Town of Cromwell.
{ Middlefield -----	{ -----	{ 1,598.24	Loaned to Town of Middlefield.
{ Haddam -----	{ 7,769.21	{ 7,769.21	Loaned on bond and mortgage, \$6,782.04; real estate, \$575; in treasury, \$138.91; lost, \$273.26.
{ Chatham -----	{ 4,606.31	{ 4,606.31	\$3,021.31 loaned to Town of Chatham; \$300 in bank stock; remainder in notes.
{ Portland -----	{ 4,606.31	{ 4,537.30	\$4,433 loaned on notes; \$104.30 in savings bank.
{ Durham -----	{ 2,866.27	{ 2,285.00	Loaned on notes.
{ East Haddam -----	{ 6,993.58	{ 6,093.58	\$6,326.58 loaned to Town of East Haddam; remainder invested in notes.
{ Killingworth -----	{ 6,376.75	{ 3,189.87	\$1,666.09 in savings banks; \$1,310.09 loaned to individuals; loss, \$273.69.
{ Clinton -----	{ -----	{ 3,190.31	Loaned to Town of Clinton, \$1,501; remainder loaned on real estate secured by mortgages.
{ Saybrook -----	{ 7,617.32	{ 2,131.12	Loaned to individuals, \$1,381.12; deposited in savings bank, \$750.
{ Chester -----	{ 2,224.18	{ 2,224.18	Invested in bonds and notes.
{ Westbrook -----	{ 3,046.40	{ 3,046.40	A part is loaned on real estate; the balance is deposited in savings banks.
{ Old Saybrook -----	{ -----	{ 2,938.86	\$1,238.86 loaned to Town of Old Saybrook, and \$800 loaned on notes.
{ Essex -----	{ -----	{ 3,460.83	Loaned to town, \$1,399.37; to individuals, \$1,075; in savings bank, \$176.46.
Totals -----	\$63,807.30	\$63,174.24	

TOLLAND COUNTY.

TOWNS.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.	How Invested.
Tolland.....	\$4,361.04	\$4,361.04	Loaned on notes of individuals.
Bolton.....	1,910.85	1,910.85	In State Treasury.
Columbia.....	2,470.75	2,470.75	Loaned to Town of Columbia.
Coventry.....	5,442.31	4,594.01	Loaned to Town of Coventry.
Ellington.....	3,736.93	3,736.93	\$2,177 loaned to Town of Ellington.
Hebron.....	4,974.88	4,159.91	Loaned to Town of Hebron, \$3,550.58; in mortgage, \$359.33; cash, \$250.
Andover.....	-----	1,663.34	Loaned to Town of Andover, \$577.49; the remainder invested in mortgages.
Mansfield.....	6,734.34	6,734.34	Loaned to Town of Mansfield.
Somers.....	3,670.16	3,670.16	Loaned to Town of Somers, \$607.40; to individuals, \$2,060; in savings bank, \$32.76; un- loaned, \$50.
Stafford.....	6,459.36	6,472.01	Loaned to Town of Stafford, \$6,271.01; notes of individuals, \$195; interest, \$6.
Union.....	1,826.10	1,832.00	Loaned to Town of Union.
Vernon.....	2,989.56	3,000.00	\$440 loaned to savings bank; \$2,560 to individuals.
Willington.....	3,351.67	3,351.67	\$1,300 loaned to Town of Willington; \$767.01 in savings banks; the remainder consists of investments of doubtful value.
Totals.....	\$47,927.95	\$47,957.01	

TOWN DEPOSIT FUND.

THE COUNTIES.

COUNTIES.	Town Deposit Fund, Jan., 1847.	Town Deposit Fund, 1887.
Hartford	\$130,197.41	\$126,298.65
New Haven	113,885.23	109,900.54
New London	111,977.60	111,601.61
Fairfield	120,583.42	123,508.96
Windham	66,494.85	64,077.00
Litchfield	110,106.20	106,808.86
Middlesex	63,807.30	63,174.24
Tolland	47,927.95	47,957.01
The State	\$764,979.96	\$753,326.87
Amount deposited	\$763,661.83	

The following is a summary of these investments :

Invested in Town securities (orders, bonds, etc.)	\$528,593.88
Notes and Mortgages	144,862.13
Bank Stock	21,184.51
Savings Banks	29,135.48
Railroad and Water Bonds	10,400.00
In State Treasury	17,328.48
Cash in hands of Treasurers	1,822.39
	<hr/> \$753,326.87

Bearing in mind that the original act provided that the "principal of this fund shall remain permanent and no part thereof shall be used for any purposes other than those designated in this act" and that the purpose designated in the act was the promotion of education in the common schools, and that money was given upon condition that the interest should be appropriated annually for this specific purpose and that the towns by vote assented to the conditions and accepted the trust, the questions which the above exhibit sets before us are :

1. Whether the principal has remained permanent and is in existence and no part thereof been used for any other purposes than those specified in the act creating the trust.

2. Whether the interest has promoted education in the common schools.

The information above summarized indicates :

1. That a small part has been misappropriated and lost.

2. Another part has been invested in securities and loans which are worthless.

3. That about five-sevenths has been borrowed by the towns from themselves as trustees, in times of emergency, and town orders or notes given as security. This method of investment if it can be called an investment has enabled the towns to use the money without increasing their interest account. Some towns transfer from the tax receipts a sum equal to six per cent. on the nominal fund to the treasurer of the fund; he enters the amount on his books as interest and pays the same sum back to the town treasurer, to be set apart to the maintenance of public schools. In most cases the whole proceeding consists of entries on the books. In this way the appearance of trusteeship is retained and the fund appears to be invested and to pay interest.

In the majority of cases it cannot be found that towns regard this sum as a liability. They do not put themselves in the position of borrowers, but they have taken the fund, regarding it as belonging to them. They still support the public schools, but this fund instead of being permanent and producing a distinct sum of money for the common schools has lost its identity except so far as a forgotten town order serves as a clue to its former existence. It is reported in some cases that these orders are not in existence, or cannot be found, while the town records show that the town authorized the use of the money and not its investment.

In fine, the towns which were made trustees of a fund devoted to the education of their children have so far violated the fiduciary relation as to borrow from themselves a fund intended to be permanent, and given upon the condition that it be preserved; and the fund appears if it appears at all, as debt from the trustee to the beneficiary. In many cases, all tracks of the fiduciary relation have disappeared and the town alone enjoys the benefits of the trust in a diminished indebtedness.

2. The answer to the question whether this fund has promoted or does promote education in the common schools has been partially given. No substantial sum is added to the resources of the towns, enabling them to improve their schools. It cannot be found that it adds to the number of schools, or augments the appliances or the libraries; it does not add to the wages of good teachers or promote good teaching; it does

not increase attendance or decrease illiteracy, or arouse any general or public interest in the schools themselves.

We can go still farther and assert that it does not add in any sense to the sum which towns devote to their public schools. They would be obliged to raise no more by taxation if the interest reported (\$38,000) were to drop out of sight and the fiction of a fund disappear. It does not even assist as in the case of the school fund in prolonging and encouraging public schools, adding a certain definite sum to that which the towns are disposed to raise by taxation. Its main purpose has been to relieve towns that were in a tight spot, by enabling them to discharge or avoid their debts, and thus diminish the interest charges of the town.

This showing illustrates the fate of gratuities given to relieve communities from their bounden duties. In this commonwealth the duty of maintaining schools is recognized, in most cases cheerfully assumed and liberally discharged. The surplus which the general government bestowed and which the State endeavored to direct into an educational channel, has not relieved the State from its responsibility, nor lightened its burden of taxation. The money has drifted away from schools which must depend and do depend upon the liberality of the people.

There is no doubt that the present attempt to again distribute to the States a surplus would result as before. Not even a temporary stimulus to education would be afforded, the tendency in every State would rather be to so order things that the gratuity should relieve from all responsibility and endeavor. The honorable public duty of providing free education for all children would be shirked and the day of educational independence long delayed.

CHARLES D. HINE.

Hartford, January 9th, 1888.

STATISTICAL TABLES.

The following tables are compiled from the returns which the law requires School Visitors to make to the Board of Education.

By way of explanation it may be said :—

1. The Grand List of each town is taken from the Comptroller's report to the General Assembly, January, 1887.

2. The per cent. of taxable property appropriated for public schools is based upon the total amount received for school purposes diminished by the amounts received from school fund, etc., town deposit fund, and local funds.

3. The amount paid for each enumerated scholar is found by dividing the total amount expended, less amount paid for new buildings, by number enumerated.

4. As has been the custom for a number of years past, the number "registered in Winter" is found by combining the number returned for Fall *and* Winter terms, taking the highest number found in either.

5. The "average attendance in Winter" is found in the same manner.

6. The number between 8 and 14 in no school, indicates the number which escaped the operation of the compulsory law, in the year ending January 1st, 1887.

7. The "per cent. who have attended some part of the year" compares the "different scholars" with the "enumeration." The large per cents., attained by some small towns, are explained by the attendance of scholars not enumerated.

8. *Regularity of attendance* and efficiency in this direction are indicated by the "per cent. of attendance on basis of registration."

9. The "per cent. of attendance on basis of enumeration" is found by dividing the average attendance for the year by the enumeration.

10. The number who "attended Normal School" is not complete.

11. By "schools" is intended the number of public schools in each town, and

12. By "departments" the number of departments in the public schools, counting each room of a graded school as one department.

13. The Public Libraries mentioned are not all free libraries.

14. The indebtedness incurred on account of schools is probably much larger than the amount reported. In towns where the districts have been consolidated and in some other towns it is made a part of the general indebtedness of the town and is not separately reported to this office.

15. Interest upon school district indebtedness, and expenditures of money for rent of school buildings are included in the sums used in computing the cost per scholar upon basis of enumeration and also upon basis of average attendance.

STATISTICAL TABLES.

HARTFORD COUNTY.

TOWNS.		RECEIPTS.							Districts Taxing.
Grand List.	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Voluntary Contrib.	Other Sources.	Total.	
Hartford.....	\$22,479 75	\$1,408 88	-----	\$69,291 11	\$84,769 90	304 40	\$14,276 00	\$192,539 04	8
Avon.....	578 25	133 20	-----	1,179 29	113 75	-----	-----	2,004 40	1
Berlin.....	1,316 25	147 09	711 12	2,658 34	1,347 86	-----	246 78	6,427 38	1
Bloomfield.....	587 25	178 48	-----	1,545 27	-----	-----	-----	2,311 00	-----
Bristol.....	2,893 50	236 62	102 63	12,171 77	4,791 01	-----	349 45	20,454 08	3
Burlington.....	603 00	54 00	18 00	1,697 69	66 17	-----	-----	2,438 86	2
Canton.....	1,167 75	147 62	-----	3,665 25	2,272 21	20 00	18 00	7,290 83	1
East Granby.....	319 50	49 00	-----	994 23	-----	-----	-----	1,362 73	-----
East Hartford.....	2,002 50	287 00	-----	5,493 16	-----	-----	1,137 72	8,920 38	1
East Windsor.....	1,739 25	209 46	44 29	3,855 29	5,456 00	-----	57 89	11,362 18	2
Enfield.....	3,973 50	274 22	21 49	8,388 83	4,952 08	150 00	169 63	18,129 75	8
Farmington.....	1,793 50	244 12	473 53	6,321 65	1,863 89	-----	38 00	10,736 69	2
Glastonbury.....	1,633 50	407 38	-----	3,409 44	910 00	18 00	211 25	6,589 37	1
Granby.....	603 00	296 12	-----	1,304 88	415 00	51 25	-----	2,670 25	1
Hartland.....	290 25	86 00	-----	974 75	-----	2 20	-----	1,347 20	-----
Manchester.....	3,991 50	269 58	-----	7,664 38	-----	-----	13,811 12	25,736 58	-----
Marlborough.....	139,861	159 75	39 00	253 38	-----	-----	172 50	568 00	-----
New Britain.....	6,728,753	177 50	341 82	22,096 63	-----	-----	74 20	31,522 95	1
Newington.....	585,531	578 25	-----	857 02	12 54	-----	175 82	1,589 46	1
Plainville.....	637,497	922 50	-----	4,202 14	-----	-----	-----	5,300 46	-----
Rocky Hill.....	383,387	519 75	12 53	607 51	-----	-----	-----	1,228 38	-----
Simsbury.....	1,195,208	911 25	100 32	3,285 18	1,291 39	50 00	27 00	5,700 04	2
South Windsor.....	2,273,419	194 16	396 33	12,073 83	33 31	-----	102 10	15,870 98	-----
Southington.....	1,386,228	252 55	6 00	2,941 31	1,216 01	18 60	68 14	5,512 86	3
Suffield.....	1,979,000	363 79	-----	3,875 63	460 82	54 00	329 70	6,069 44	1
West Hartford.....	2,474,407	801 00	25 50	5,977 17	-----	-----	45 00	6,068 27	-----
Wethersfield.....	1,209,088	684 00	107 31	1,682 88	68 00	-----	396 06	3,558 00	-----
Windsor.....	1,422,204	1,318 50	199 90	4,889 51	697 48	29 98	431 69	7,747 06	3
Windsor Locks.....	718,174	1,586 25	-----	3,619 14	-----	-----	-----	5,313 39	-----
29 Towns.	\$87,069,872	\$6,297 81	\$3,026 29	\$196,276 46	\$110,647 36	\$698 43	\$32,138 65	\$416,882 00	41

HARTFORD COUNTY.

EXPENSES.

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TOWNS.	EXPENSES.							District Indebtedness.	Per cent. etc.*	Per cent. etc.†	Paid for each child enumerated.	Paid for each child in average attendance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Total.					
Hartford.....	\$28,050 84	\$19,452 96	\$26,008 81	\$1,758 69	\$27,500 00	\$33,215 97	\$235,087 27	\$432,500 00	3.56	1.46	\$20 08	\$42 53
Avon.....	1,663 69	137 80	84 15	35 00	-----	53 00	1,073 64	-----	2.77	2.53	7 67	13 61
Berlin.....	3,674 89	499 47	238 44	17 00	1,344 04	38 40	6,132 24	125 00	3.85	2.40	8 20	17 19
Bloomfield.....	2,053 50	166 75	-----	-----	-----	38 00	2,258 25	200 00	2.02	2.82	8 65	16 24
Bristol.....	3,643 21	1,193 51	1,897 89	315 13	-----	2,570 90	19,620 64	13,723 35	7.43	5.25	15 26	24 05
Burlington.....	2,249 66	144 20	-----	-----	-----	48 00	2,438 86	100 00	4.75	4.57	9 10	16 04
Canton.....	6,021 47	591 77	72 23	20 00	-----	48 35	7,191 82	500 00	5.15	3.16	13 85	17 58
East Granby.....	1,220 82	95 91	-----	-----	-----	38 00	1,350 73	-----	2.03	2.03	9 55	17 00
East Hartford.....	6,522 82	886 18	669 60	71 14	-----	350 50	8,499 64	400 00	3.94	3.26	9 55	16 99
East Windsor.....	5,671 81	486 22	434 17	60 00	-----	929 72	7,575 92	10,652 64	6.38	3.31	9 80	16 68
Enfield.....	11,203 44	1,851 08	1,571 70	352 51	795 50	637 50	16,411 73	9,430 00	5.23	3.20	8 84	20 38
Farmington.....	7,559 05	1,255 52	215 50	39 25	-----	33 18	9,445 50	2,450 00	4.26	3.26	11 83	19 36
Glastonbury.....	4,679 73	527 89	893 24	77 00	-----	411 51	6,589 37	120 00	4.07	3.05	9 07	17 38
Granby.....	2,069 16	130 09	400 00	-----	-----	71 00	2,670 25	62 00	4.08	3.00	9 96	16 48
Hartland.....	1,221 88	80 32	-----	-----	-----	45 00	1,347 20	45 00	4.61	4.61	10 44	17 49
Manchester.....	9,581 35	2,057 16	575 00	270 00	13,000 00	393 65	25,877 16	286 95	7.83	2.78	7 25	14 15
Marlborough.....	554 50	31 52	7 00	-----	-----	19 00	612 02	-----	1.81	1.81	8 62	17 00
New Britain.....	21,680 00	4,560 25	2,538 05	220 00	-----	2,524 65	31,522 95	8,000 00	3.30	3.30	8 12	20 84
Newington.....	1,323 69	139 97	2 00	37 58	1,200 00	59 73	2,753 97	1,600 00	1.61	1.61	6 04	12 14
Plainville.....	3,728 00	221 33	758 41	106 59	-----	46 13	5,320 46	-----	6.86	6.86	12 92	10 27
Rocky Hill.....	1,042 00	125 00	38 42	-----	-----	36 00	1,241 51	-----	1.58	1.58	5 37	10 80
Simsbury.....	3,835 34	309 85	765 80	50 00	-----	638 06	5,769 14	-----	3.05	2.74	14 39	23 88
Southington.....	12,594 00	2,618 00	1,352 26	88 00	334 27	207 00	16,530 53	7,093 00	5.54	5.54	11 86	19 30
South Windsor.....	3,729 61	330 99	604 68	88 60	-----	102 25	4,875 53	270 00	3.66	2.12	10 85	19 27
Suffield.....	4,990 96	689 03	792 62	35 00	-----	105 83	6,619 44	151 75	2.33	1.95	9 70	18 59
West Hartford.....	4,461 20	440 49	103 07	170 75	-----	812 76	6,054 27	-----	2.06	2.06	17 28	26 09
Wethersfield.....	2,920 50	508 65	141 07	-----	-----	131 41	3,721 63	50 00	1.77	1.39	12 24	18 89
Windsor.....	6,023 95	557 82	203 17	29 80	-----	676 86	7,591 60	7,948 68	4.25	3.43	12 80	21 87
Windsor Locks.....	4,728 50	535 69	-----	-----	-----	48 00	5,312 19	30,000 00	5.03	5.03	7 53	14 24
29 Towns.....	\$278,609 57	\$40,141 51	\$40,426 17	\$3,779 04	\$44,173 81	\$46,014 36	\$453,144 46	\$25,675 56	3.90	2.25	\$13 56	\$26 31

* Of taxable property appropriated for Public Schools, in mills and roots.
† Of taxable property appropriated for Public Schools by town tax, in mills and roots.

NEW HAVEN COUNTY.

EXPENSES

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EXPENSES.

TOWNS.

TOWNS.	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Total.	Cost of Superintendence.	District Indebtedness.	Per cent. etc.*	Per cent. child enumerated.	Paid for each child in average attendance.
New Haven City.	\$178,118 50	\$18,609 69	\$6,089 37	\$1,444 20	\$4,623 72	\$33,814 67	\$242,790 15	\$3,000 00	\$80,000 00	---	\$13 21	\$22 87
Westville	4,132 26	174 75	114 94	85 44	---	863 11	5,370 50	50 00	5,000 00	---	14 43	27 54
" South	388 00	41 50	---	---	---	---	429 50	---	---	---	7 15	19 52
" complete	182,638 76	18,855 94	6,204 31	1,529 64	4,623 72	34,677 78	248,500 15	3,050 00	85,000 00	1.00	13 78	23 93
Beacon Falls	1,043 83	224 40	54 17	---	---	41 00	1,363 40	41 00	---	2.89	7 70	15 67
Bethany	1,140 22	102 20	175 00	---	---	22 60	1,440 02	22 60	---	3.73	12 41	28 23
Branford	5,566 80	1,127 28	681 29	100 00	---	---	7,475 37	75 00	---	3.60	10 46	17 22
Cheshire	4,121 18	74 11	74 11	---	900 00	100 00	4,975 23	100 00	---	4.53	11 58	23 83
Derby	27,001 40	2,201 60	2,527 42	497 47	---	7,837 50	40,155 39	310 60	30,785 00	0.20	10 92	22 00
East Haven	958 13	110 43	232 00	21 25	---	43 10	1,364 01	43 10	250 00	1.32	11 97	23 53
Guilford	4,186 27	315 79	44 36	18 25	---	139 00	4,793 67	100 00	---	2.13	8 31	15 17
Hamden	4,861 35	563 81	---	60 00	---	170 00	5,664 16	179 00	---	2.07	7 34	14 59
Madison	2,305 40	260 44	532 00	---	---	70 00	3,167 93	70 00	---	2.73	11 82	20 43
Meriden	4,026 83	734 88	240 56	35 00	---	4,886 95	74,985 96	880 00	107,585 00	3.01	10 88	22 28
Middlebury	1,522 67	125 62	185 55	63 75	---	28 50	1,938 24	28 50	---	3.58	11 25	27 10
Milford	8,755 85	590 80	735 47	---	---	---	5,323 27	---	---	2.97	7 71	15 13
Naugatuck	1,282 67	177 99	---	---	---	1,694 36	12,140 23	247 00	---	7.27	10 90	21 84
North Branford	2,284 55	636 29	300 00	5 00	---	31 00	2,930 54	31 00	---	2.49	12 81	19 08
North Haven	6,651 93	96 52	520 37	317 52	---	60 00	9,193 05	139 00	---	2.04	7 55	13 98
Orange	1,634 11	38 67	281 19	10 00	---	1,060 94	9,193 05	70 00	2,000 00	5.05	10 94	17 99
Oxford	612 00	38 67	500 00	---	---	70 00	2,091 82	70 00	---	2.66	9 21	15 26
Prospect	4,779 82	506 15	102 10	94 91	---	16 00	6,71 67	16 00	---	2.16	7 07	16 38
Seymour	1,879 42	106 65	---	---	---	1,011 21	6,494 19	54 00	35,000 00	3.83	8 52	14 95
Southbury	11,395 70	1,111 22	1,111 22	70 37	---	109 00	21,676 07	109 00	---	2.25	8 77	17 40
Wallingford	3,811 20	480 72	242 87	41 57	---	1,983 33	15,065 89	167 00	---	7.06	12 94	20 53
Waterbury	38,038 33	6,077 13	5,371 57	460 00	445 52	316 00	53,637 88	248 00	1,101 48	---	8 20	15 83
" Centre	---	---	---	---	---	154 00	50,101 03	2,000 00	50,307 68	---	8 59	14 61
" complete	41,849 53	6,557 85	5,614 44	501 37	445 52	470 00	55,438 91	2,248 00	60,409 16	5.49	8 56	14 72
Wolcott	1,079 00	71 75	---	---	---	25 00	1,166 75	25 00	---	1.52	9 64	15 98
Woodbridge	1,745 92	132 81	---	60 00	---	42 00	1,980 73	42 00	---	3.54	11 44	19 61
25 Towns.....	\$363,672 58	\$42,876 18	\$22,517 62	\$4,543 75	\$23,664 44	\$54,904 27	\$512,178 84	\$8,027 80	\$358,684 89	4.02	\$16 21	\$- 87

* Of taxable property appropriated for Public Schools, in mills and toaths.

† Of taxable property appropriated for Public Schools by town tax, in mills and toaths.

NEW LONDON COUNTY.

EXPENSES.

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TOWNS.	EXPENSES.										District Indebtedness.	Per cent. etc.*	Per cent. etc.†	Paid for each child in average attendance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Total.	Cost of Superintendence.						
New London	\$18,175 00	\$995 57	\$2,357 47	\$220 00	-----	\$3,061 10	\$24,809 14	\$500 00	-----	-----	2.93	2.92	\$10 66	\$15 97
Norwich Town	2,500 00	258 00	58 00	35 00	-----	-----	3,101 00	2,250 00	-----	-----	-----	-----	10 76	21 09
" Central	10,856 87	2,853 55	1,630 53	125 00	-----	1,400 00	25,874 05	2,250 00	\$32,453 99	-----	-----	-----	17 26	36 44
" West Chelsea	6,128 00	1,193 57	525 31	-----	-----	415 25	8,312 03	100 00	10,000 00	-----	-----	-----	7 65	18 15
" other Districts	15,238 30	1,621 04	1,107 31	120 50	-----	1,310 32	19,493 47	500 00	15,000 00	-----	-----	-----	7 71	20 12
" complete	43,773 17	5,026 16	3,330 05	280 50	-----	3,381 57	56,691 45	2,850 00	66,453 99	-----	4.36	0.98	10 77	24 47
Bozrah	1,476 40	132 39	-----	-----	-----	-----	1,608 79	-----	-----	-----	2.32	2.32	6 96	11 34
Colchester	5,254 76	387 35	325 00	50 00	-----	59 50	6,076 61	59 50	408 80	-----	3.30	3.06	9 81	15 99
East Lyme	2,363 72	189 22	178 15	-----	-----	100 50	2,831 59	90 00	2,050 00	-----	2.88	2.47	7 07	12 41
Franklin	1,064 22	76 47	-----	-----	-----	59 80	1,200 49	59 80	-----	-----	2.26	2.26	9 02	20 34
Griswold	5,031 68	470 71	46 72	190 00	2,046 57	318 00	8,123 68	90 00	300 00	-----	5.68	3.47	10 09	20 05
Groton	7,885 38	798 11	71 70	27 85	-----	602 89	9,386 02	194 50	4,894 62	-----	3.34	3.15	8 75	14 99
Lebanon	2,867 19	242 37	75 00	-----	811 32	187 86	4,183 74	95 00	150 00	-----	2.80	1.87	11 78	19 61
Ledyard	1,845 02	120 16	-----	-----	-----	58 00	2,033 08	58 00	-----	-----	2.22	2.09	7 42	14 21
Lisbon	944 77	86 09	-----	-----	-----	-----	1,070 86	-----	-----	-----	3.07	2.75	12 59	21 85
Lyme	1,132 74	80 02	-----	-----	-----	37 60	1,270 36	37 60	-----	-----	2.05	1.82	6 37	12 21
Montville	4,062 71	299 58	32 39	45 00	-----	71 01	4,510 30	71 01	-----	-----	2.62	2.62	7 83	14 00
North Stonington	2,668 11	181 31	1 44	-----	-----	143 00	3,133 86	143 00	-----	-----	3.80	2.45	8 03	14 11
Old Lyme	1,588 00	110 00	-----	-----	-----	50 00	1,748 00	50 00	-----	-----	1.95	1.95	6 00	14 21
Preston	4,143 02	337 49	2 50	-----	2,000 00	140 00	4,623 01	140 00	1,025 00	-----	3.07	3.00	6 95	12 63
Salem	911 17	43 72	59 21	-----	-----	28 00	3,042 10	28 00	-----	-----	12.90	2.80	10 21	17 96
Sprague	2,733 85	432 56	22 89	25 50	-----	140 00	3,354 80	140 00	-----	-----	0.91	0.85	3 34	14 00
Stonington	11,835 64	788 49	1,312 01	113 50	-----	2,866 30	16,335 94	358 00	10,706 47	-----	2.13	1.76	10 35	27 40
Voluntown	1,685 28	122 97	-----	-----	-----	51 00	1,859 25	51 00	-----	-----	3.98	3.98	6 15	13 57
Waterford	3,291 44	347 65	-----	-----	-----	130 00	3,769 09	130 00	-----	-----	1.58	1.58	6 20	13 65
21 Towns.	\$124,974 17	\$12,177 39	\$7,814 62	\$952 35	\$4,857 89	\$11,486 13	\$162,262 55	\$5,146 41	\$85,988 88	-----	3.34	1.97	\$8 20	\$18 64

* Of taxable property appropriated for Public Schools, in mills and roots.
† Of taxable property appropriated for Public Schools by town tax, in mills and roots.

FAIRFIELD COUNTY:

TOWNS.		Grand List.		RECEIPTS.							Districts Taxing.	
				School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Voluntary Contrib.	Other Sources.	Total.	
Bridgeport	\$15,731,834	\$20,351 25	\$431 48	\$112 00	\$75,002 90	-----	-----	-----	-----	\$1,816 48	\$8,614 11	--
Danbury	6,384,391	8,415 00	438 37	64 00	19,257 99	\$272 69	\$10 00	-----	-----	1,415 86	20,873 91	--
Bethel	977,535	1,509 75	130 45	10 45	3,568 03	-----	6 00	-----	-----	-----	5,224 68	--
Brookfield	585,478	555 75	193 37	28 18	1,360 80	233 39	-----	-----	-----	-----	2,371 49	--
Darien	1,640,005	812 25	191 10	-----	2,751 19	454 93	-----	-----	-----	25 00	4,234 47	--
Easton	431,513	348 75	139 38	145 69	1,433 98	-----	-----	-----	-----	30 00	2,097 80	--
Fairfield	2,170,966	1,714 50	450 30	242 94	7,620 21	-----	85 05	-----	-----	36 00	10,149 00	2
Greenwich	4,122,705	4,243 50	162 30	-----	8,974 68	1,476 47	540 29	-----	-----	84 44	15,481 68	1
Huntington	1,385,275	1,867 50	63 75	-----	4,890 33	2,799 60	-----	-----	-----	230 82	9,852 00	1
Monroe	504,438	454 50	258 30	-----	1,928 31	-----	-----	-----	-----	-----	1,741 11	--
New Canaan	1,250,442	1,203 75	358 00	15 71	3,301 70	-----	-----	-----	-----	-----	4,879 16	--
New Fairfield	384,900	310 50	171 30	-----	1,030 65	-----	-----	-----	-----	-----	1,512 45	--
Newtown	1,608,612	1,800 00	524 11	188 00	5,145 89	-----	-----	-----	-----	-----	7,560 00	--
Norwalk	5,456,065	7,589 25	472 62	-----	20,339 89	15,544 41	19 17	-----	-----	210 00	44,362 84	2
Redding	794,610	594 00	217 51	29 68	1,037 88	499 94	-----	-----	-----	10 70	2,899 71	3
Ridgefield	1,132,737	882 00	230 00	75 65	3,032 00	-----	-----	-----	-----	255 75	4,475 46	1
Sherman	355,468	317 25	144 00	-----	767 95	-----	10 44	-----	-----	-----	1,239 34	--
Stamford	8,001,455	7,058 25	423 38	104 04	23,145 04	-----	100 00	-----	-----	71 87	30,902 58	--
Stratford	1,630,347	2,808 00	279 56	112 00	8,061 95	4,138 61	25 00	-----	-----	91 00	15,510 13	2
Trumbull	632,148	555 75	191 84	79 59	1,455 32	39 00	-----	-----	-----	-----	2,321 50	--
Weston	409,719	346 50	179 91	150 40	3,741 14	-----	5 00	-----	-----	-----	1,118 31	--
Westport	2,106,753	1,795 50	224 36	-----	1,782 82	-----	15 42	-----	-----	-----	5,766 00	--
Wilton	703,913	760 50	-----	-----	-----	-----	-----	-----	-----	-----	2,558 74	--
23 Towns.	\$58,491,849	\$66,294 00	\$5,875 39	\$1,358 33	\$200,671 42	\$25,459 04	\$816 37	\$4,277 92	\$816 37	\$304,752 47		12

FAIRFIELD COUNTY.

TOWNS.	EXPENSES.						Cost of Superintendence.	District Indebtedness.	Per cent. etc.*	Per cent. etc.†	Paid for each child enumerated.	Paid for each child in average attendance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Potal.					
Bridgeport.....	\$65,631 81	\$8,495 68	\$4,079 46	\$489 11	\$14,136 37	\$5,871 78	\$98,614 21	\$2,500 00	4.94	4.82	\$9 33	\$16 34
Danbury.....	22,682 85	4,083 36	1,771 59	91 10	289 50	4,983 48	33,991 88	478 58	3.28	3.01	8 98	19 31
Rethel.....	4,317 71	526 04	24 97	-----	-----	40 00	5,458 72	90 00	3.65	3.65	8 13	14 17
Brookfield.....	1,801 35	177 00	233 39	-----	-----	40 00	2,251 74	40 00	2.72	2.32	9 11	19 08
Darien.....	3,250 64	378 91	-----	40 00	-----	134 00	3,872 55	100 00	1.97	1.67	10 56	23 05
Easton.....	1,861 95	124 45	-----	26 00	-----	85 30	2,097 70	71 00	3.39	3.32	13 33	23 75
Fairfield.....	7,572 12	1,158 21	296 08	50 00	3,475 00	999 62	13,551 03	398 02	3.56	3.51	13 55	30 56
Greenwich.....	12,722 12	1,025 40	978 31	50 00	-----	795 45	15,481 68	448 92	2.66	2.17	8 20	21 02
Huntington.....	5,154 03	542 00	1,277 00	50 00	360 63	1,277 57	8,061 39	171 25	5.72	3.53	10 60	20 19
Monroe.....	1,585 20	113 85	-----	-----	-----	42 00	1,741 11	42 00	2.03	2.03	8 61	17 41
New Canaan.....	4,422 43	386 73	-----	10 00	-----	75 00	4,884 16	75 00	2.64	2.04	9 11	23 70
New Fairfield.....	1,400 83	77 89	-----	-----	37 00	1,525 72	37 00	37 00	2.69	2.69	11 05	21 65
Newtown.....	6,851 68	458 32	-----	-----	250 00	7,500 00	250 00	250 00	3.02	3.02	9 00	17 26
Norwalk.....	25,393 25	2,922 80	2,228 33	52 50	11,741 80	1,870 24	44,209 01	325 00	6.61	3.72	9 02	20 19
Redding.....	2,150 04	147 52	498 78	10 70	-----	91 51	2,868 55	91 51	2.70	2.06	12 93	30 83
Ridgefield.....	3,976 40	386 29	10 65	38 00	-----	65 00	4,476 34	65 00	2.90	2.67	11 41	20 72
Sherman.....	1,132 22	80 12	-----	-----	80 00	27 00	1,239 34	27 00	2.16	2.15	8 78	18 22
Stamford.....	23,565 50	3,632 30	2,785 63	240 44	-----	678 71	30,902 58	425 00	-----	*2.91	2.88	23 91
Stratford.....	9,700 10	1,029 16	1,050 16	58 91	-----	2,972 84	14,811 52	125 00	7.55	4.94	11 86	20 51
Trumbull.....	2,061 14	174 39	74 75	10 00	37 00	2,337 25	37 00	37 00	2.20	2.20	9 50	17 85
Weston.....	1,024 17	72 17	-----	-----	-----	22 00	1,118 37	22 00	1.07	1.07	10 77	18 03
Westport.....	5,301 37	323 53	-----	-----	-----	125 00	5,749 90	125 00	1.77	1.77	7 54	20 17
Wilton.....	2,301 23	180 50	-----	-----	-----	60 00	2,539 73	60 00	2.55	2.55	7 54	13 93
23 Towns.	\$216,369 57	\$26,366 04	\$15,309 16	\$1,216 76	\$30,009 39	\$20,540 50	\$309,811 42	\$6,004 28	3.95	3.43	\$ 9 49	\$19 13

* Of taxable property appropriated for Public Schools, in mills and roots.

† Of taxable property appropriated for Public Schools by town tax, in mills and roots.

RECEIPTS.

WINDHAM COUNTY.

TOWNS.	Grand List.	RECEIPTS.							Districts Taxing.	
		School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Voluntary Contrib.	Other Sources.		Total.
Brooklyn	\$1,480,814	\$1,401 75	\$225 00	\$6 48	\$3,477 44	\$1,506 95	\$100 00	\$53 00	\$6,770 62	3
Ashford	289,759	335 50	182 44	-----	974 47	-----	-----	-----	1,512 41	--
Canterbury	488,290	470 25	144 78	19 20	1,106 27	-----	6 00	5 00	1,751 50	--
Chaplin	212,800	238 75	124 36	-----	409 04	-----	-----	-----	882 15	--
Eastford	209,369	274 50	189 66	-----	453 63	-----	44 01	-----	961 80	--
Hampton	351,866	369 00	132 02	11 37	746 64	-----	-----	-----	1,259 03	--
Killingly	2,178,913	3,650 00	401 82	-----	9,496 94	2,751 55	-----	2,995 66	19,256 47	2
Plainfield	1,879,987	2,202 75	371 05	-----	4,779 31	222 43	-----	-----	7,875 54	--
Pomfret	785,432	645 75	272 50	-----	951 22	-----	-----	-----	1,869 47	--
Putnam	1,945,973	3,622 50	259 04	13 98	4,336 84	-----	-----	150 00	8,382 36	--
Scotland	290,759	240 50	66 39	23 48	608 14	-----	-----	-----	918 51	--
Sterling	266,091	443 25	70 00	-----	997 95	-----	19 00	-----	1,550 20	--
Thompson	1,744,604	3,183 75	185 51	-----	2,788 00	1,083 45	15 00	75 00	7,330 71	3
Windham	4,259,494	4,366 50	348 04	56 82	10,876 01	6,981 24	-----	1,112 59	23,682 10	4
Woodstock	951,047	1,170 00	373 50	3 38	2,063 41	144 50	-----	-----	3,754 79	1
15 Towns.	\$17,335,108	\$22,475 25	\$3,407 01	\$134 71	\$44,155 31	\$12,690 12	\$184 01	\$4,391 25	\$87,437 66	13

WINDHAM COUNTY.

TOWNS.	EXPENSES.							District Indebted- ness.	Per cent. etc.*	Per cent. etc.†	Paid for each child enumer- ated.	Paid for each child in average attend- ance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Build-ings.	Other Objects.	Total.					
Brooklyn	\$4,410 70	\$605 39	\$539 18	\$301 00	-----	\$441 20	\$6,297 47	\$4,610 00	3.46	2.34	\$10 10	\$20 38
Ashford	1,353 26	94 35	65	-----	-----	55 00	1,513 26	55 00	3.36	3.30	9 57	17 80
Canterbury	1,573 02	91 06	1 00	5 00	-----	52 70	1,722 78	52 70	2.28	2.26	8 24	14 72
Chaplin	819 89	40 26	-----	20 00	-----	22 00	902 15	22 00	2.34	2.34	7 84	14 09
Eastford	892 87	34 93	-----	-----	-----	34 00	961 80	83 00	2.17	2.17	7 88	11 70
Hampton	1,126 22	102 81	-----	-----	-----	30 00	1,259 03	30 00	2.12	2.12	7 67	12 59
Killingly	11,919 35	1,379 91	1,462 65	262 85	-----	4,231 71	19,256 47	80 00	6.95	4.35	12 20	23 83
Plainfield	6,585 63	605 48	206 43	16 00	-----	162 00	7,575 54	15,000 00	2.66	2.54	6 73	14 97
Pomfret	1,659 51	147 96	-----	-----	-----	62 00	1,869 47	2,828 00	1.21	1.21	5 41	11 00
Putnam	6,747 51	1,434 93	338 46	-----	-----	200 00	8,720 90	3,167 56	2.30	2.22	5 41	20 66
Scotland	853 70	60 11	-----	-----	-----	22 00	944 81	-----	2.08	2.08	9 64	16 57
Sterling	1,393 58	104 42	10 00	-----	-----	43 00	1,550 00	-----	3.82	3.75	7 76	13 54
Thompson	5,510 24	565 04	1,081 02	134 50	-----	160 48	7,482 28	2 00	2.27	1.59	5 28	17 44
Windham	14,589 09	1,760 58	2,496 02	326 56	-----	1,081 41	20,223 00	5,000 00	4.45	2.55	10 56	27 33
Woodstock	3,165 24	280 95	343 00	-----	-----	140 00	3,949 19	198 50	2.32	2.10	7 59	13 43
15 Towns.	\$62,599 81	\$7,318 18	\$6,487 41	\$1,065 91	-----	\$6,737 59	\$84,208 81	\$30,969 71	3.54	2.54	\$ 8 43	\$19 66

* Of taxable property appropriated for Public Schools, in mills and roots.

† Of taxable property appropriated for Public Schools by town tax, in mills and roots.

RECEIPTS.

LITCHFIELD COUNTY.

TOWNS.	Grand List.	RECEIPTS.							Districts Taxing.
		School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Voluntary Contrib.	Other Sources.		Total.
Litchfield	\$1,080,343	\$1,586 25	\$322 90	\$203 02	\$9,396 56	---	---	\$300 00	\$12,008 73
Barkhamsted	416,393	645 75	264 24	---	797 21	227 61	\$23 00	---	1,957 81
Bethlehem	441,148	240 75	106 92	---	1,003 20	---	---	---	1,350 87
Bridgewater	403,060	335 25	148 88	8 00	915 38	---	10 00	---	1,417 51
Canaan	479,669	461 25	120 00	---	1,186 58	635 00	---	---	2,412 83
Colebrook	400,164	677 00	26 00	---	1,597 53	197 39	---	---	2,421 42
Cornwall	665,366	774 50	222 12	38 82	1,765 81	---	149 00	23 00	2,084 75
Goshen	797,423	517 50	60 00	---	1,416 60	---	---	---	1,004 10
Harwinton	455,689	537 50	---	---	1,061 05	---	---	6 00	1,825 58
Kent	482,825	767 25	60 00	---	1,968 10	509 19	25 42	14 00	3,363 96
Morris	302,979	236 50	133 00	---	553 50	---	---	---	925 00
New Hartford	1,132,008	1,622 25	61 80	---	3,726 36	1,086 09	---	21 00	6,517 50
New Milford	1,026,135	1,818 00	108 00	---	4,842 57	879 50	112 88	102 88	8,329 13
Norfolk	825,797	819 00	183 26	91 82	1,751 47	3 54	---	---	3,093 09
North Canaan	692,379	744 75	174 51	---	1,790 74	70 53	---	43 50	2,824 53
Plymouth	974,071	1,082 25	163 25	---	4,333 45	737 00	45 54	88 35	6,449 84
Roxbury	442,086	409 50	30 75	---	1,687 55	172 00	---	---	1,740 80
Salsbury	1,012,851	1,053 00	---	---	5,164 17	221 87	17 55	15 50	7,371 89
Sharon	1,393,283	1,082 25	453 00	---	2,843 11	---	15 09	---	4,393 45
Thomaston	1,549,335	1,849 50	156 34	---	5,416 13	---	---	---	7,421 97
Torrington	1,739,174	2,432 25	237 64	150 00	10,520 11	---	---	---	13,340 00
Warren	234,345	243 00	151 94	---	385 52	---	145 75	---	1,126 21
Washington	974,030	670 50	249 80	---	1,858 24	183 68	---	---	2,962 22
Watertown	1,443,967	938 25	269 15	---	2,844 84	359 61	21 00	10 00	4,442 85
Winchester	2,053,294	2,470 50	273 05	---	9,659 61	115 00	---	---	12,532 50
Woodbury	1,006,888	999 00	345 07	3 00	2,114 01	444 34	3 95	---	3,990 37
26 Towns.	\$26,006,202	\$25,825 50	\$5,119 65	\$602 66	\$80,119 40	\$5,842 35	\$873 18	\$743 37	\$119,126 11

LITCHFIELD COUNTY.

TOWNS.	EXPENSES.							Cost of Superintendence.	District Indebtedness.	Per cent. etc.*	Per cent. etc.†	Paid for each child enumerated.	Paid for each child in average attendance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Total.						
Litchfield	\$5,540 40	\$723 49	\$638 36	\$163 17	\$4,000 00	\$923 31	\$12,008 73	\$310 00	-----	4.89	4.74	\$11 35	\$23 48
Barkhamsted	1,558 43	97 77	24 79	-----	-----	60 00	1,740 99	60 00	-----	2.51	1.91	6 06	11 01
Bethlehem	1,155 09	87 08	-----	3 98	-----	50 00	1,297 65	50 00	-----	2.27	2.27	12 12	28 83
Bridgewater	1,286 07	80 84	5 00	5 00	-----	40 00	1,417 51	40 00	-----	2.29	2.27	9 58	17 50
Canaan	1,567 83	160 83	176 00	-----	460 00	40 00	2,412 83	40 00	-----	3.60	2.47	0 52	21 22
Colebrook	2,014 07	137 06	200 11	-----	-----	70 28	2,421 52	50 00	100 00	4.45	3.91	8 06	13 01
Cornwall	2,520 93	228 39	39 73	71 00	-----	125 60	2,984 75	125 60	-----	2.93	2.65	8 67	13 70
Goshen	1,826 83	145 30	-----	-----	-----	85 30	2,058 22	85 30	-----	2.00	2.00	8 94	18 71
Harwinton	1,681 00	99 68	-----	-----	17 50	46 00	1,844 18	46 00	-----	2.34	2.34	8 01	15 24
Kent	2,655 38	219 39	293 12	12 00	-----	184 07	3,353 96	85 00	-----	5.25	4.11	9 80	20 70
Morris	849 00	51 00	-----	-----	-----	25 00	925 00	25 00	-----	1.52	1.52	7 82	14 45
New Hartford	4,020 70	574 14	132 27	17 72	761 13	265 86	6,411 76	129 05	9,169 69	4.26	3.29	7 80	17 06
New Milford	6,436 25	652 68	923 88	62 00	-----	134 00	8,268 81	134 00	-----	2.93	2.39	10 15	19 92
Norfolk	2,707 87	238 05	57 50	-----	425 57	119 00	3,607 99	119 00	550 00	3.03	2.12	8 74	16 15
North Canaan	2,372 50	287 15	65 00	-----	-----	60 00	2,784 65	60 00	-----	2.71	2.58	8 41	13 92
Plymouth	5,061 12	372 06	322 65	104 95	-----	253 39	6,114 17	117 00	-----	5.34	4.44	12 71	19 65
Roxbury	1,341 05	11 50	232 00	-----	-----	58 25	1,740 80	50 00	-----	2.96	2.44	9 50	16 66
Salisbury	5,750 00	622 22	188 87	-----	-----	810 80	7,371 89	254 55	-----	2.82	2.69	8 49	20 62
Sharon	3,955 00	351 43	-----	-----	-----	87 02	4,393 45	87 02	-----	2.10	2.17	9 13	19 87
Thomaston	5,220 20	1,583 06	618 71	430 00	1,150 00	-----	8,571 97	72 00	-----	3.40	3.49	9 02	15 89
Torrington	8,667 95	1,206 06	886 39	450 00	2,129 60	-----	13,350 00	108 00	-----	6.04	6.04	10 36	17 54
Warren	1,051 68	73 28	-----	-----	-----	26 00	1,150 96	26 00	-----	2.60	2.49	10 65	23 01
Washington	2,489 08	213 06	183 68	-----	-----	75 50	2,962 22	75 50	-----	2.09	1.99	9 04	10 74
Watertown	3,547 08	452 65	317 47	20 50	-----	102 35	4,441 85	102 25	1,007 39	2.24	1.96	10 65	21 35
Winchester	10,604 06	1,142 22	961 26	22 20	-----	237 91	12,968 55	147 25	11,000 13	3.31	3.24	11 81	25 42
Woodbury	3,086 34	234 69	444 34	-----	-----	150 00	3,969 37	150 00	-----	2.54	2.09	8 80	19 35
26 Towns.	\$89,622 07	\$10,163 58	\$6,751 13	\$932 52	\$8,963 80	\$4,029 68	\$120,462 78	\$2,548 72	\$21,827 21	3.36	3.08	\$9 71	\$18 90

* Of taxable property appropriated for Public Schools, in mills and rooths.

† Of taxable property appropriated for Public Schools by town tax, in mills and rooths.

MIDDLESEX COUNTY.

TOWNS.	EXPENSES.							Cost of Superintendence.	District Indebtedness.	Per cent. etc.*	Per cent. etc.†	Paid for each child enumerated.	Paid for each child in average attendance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Total.						
Middletown	\$6,764 30	\$743 98	\$83 78	\$17 00	-----	\$305 50	\$7,914 56	\$305 50	\$94 13	-----	-----	\$6 83	\$11 97
" City	12,957 00	664 45	278 58	125 65	-----	7,587 11	21,612 79	100 00	59,051 65	-----	-----	14 59	34 47
" complete	19,721 30	1,408 43	362 36	142 65	-----	7,892 61	29,527 35	405 50	59,145 78	2.70	1.23	11 10	22 93
Haddam	2,988 24	231 05	39 70	44 25	-----	100 00	3,463 27	100 00	95 00	2.30	2.23	7 07	12 84
Chatham	3,262 63	400 42	683 25	-----	-----	245 27	4,590 97	97 50	-----	5.61	3.80	9 87	18 81
Chester	1,854 00	193 36	196 80	8 00	-----	42 49	1,994 05	37 99	275 00	2.30	2.25	7 70	14 91
Clinton	877 50	75 32	-----	-----	-----	-----	952 82	-----	-----	0.17	0.17	3 84	39 70
Cromwell	2,291 50	230 36	216 04	10 00	-----	47 79	2,795 69	47 79	-----	2.07	2.07	7 39	12 20
Durham	1,262 14	143 19	-----	-----	-----	29 00	1,434 33	29 00	-----	1.71	1.71	9 89	19 12
East Haddam	4,143 07	377 77	16 73	-----	-----	145 85	4,683 42	145 85	1,649 50	2.71	2.34	8 70	15 30
Essex	2,978 18	269 82	72 26	70 00	\$1,300 00	270 65	4,960 91	55 75	-----	4.31	4.31	11 53	18 52
Killingworth	1,221 25	82 58	-----	-----	-----	39 00	1,342 83	39 00	-----	4.33	4.33	13 16	20 98
Middlefield	1,412 90	108 29	9 90	40 00	-----	28 75	1,669 84	28 75	-----	2.98	2.13	8 36	15 79
Old Saybrook	1,259 00	103 00	98 00	-----	-----	50 00	1,668 15	50 00	-----	0.73	0.73	5 21	12 40
Portland	8,850 00	1,105 63	1,083 93	43 50	-----	585 09	11,668 15	212 00	4,562 00	4.38	4.13	11 82	20 68
Saybrook	2,373 10	665 04	32 00	-----	-----	-----	3,070 14	78 30	10,000 00	4.09	4.09	13 58	16 68
Westbrook	941 39	70 27	28 95	-----	-----	25 00	1,065 61	25 00	-----	1.14	1.06	7 45	11 97
15 Towns.	\$55,135 60	\$5,644 53	\$2,839 92	\$358 40	\$1,300 00	\$9,501 50	\$74,779 95	1,352 43	\$75,727 28	2.77	2.01	\$9 85	\$18 62

* Of taxable property appropriated for Public Schools, in mills and roots.

† Of taxable property appropriated for Public Schools by town tax, in mills and roots.

TOLLAND COUNTY.

TOWNS.	EXPENSES.							Cost of Superintendence.	District Indebtedness.	Per cent. etc.*	Paid for each child enumerated.	Paid for each child in average attendance.
	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	Other Objects.	Total.					
Tolland.....	\$1,664 94	\$104 88	\$22 00	-----	-----	\$60 75	\$1,852 57	\$50 00	\$7 00	2.21	2.14	\$7 95
Andover.....	450 00	37 50	-----	-----	-----	16 75	504 25	16 75	-----	1.15	1.15	7 10
Bolton.....	835 70	54 72	-----	-----	-----	35 88	926 30	30 00	-----	2.52	2.35	6 43
Columbia.....	1,259 26	70 57	30 00	-----	-----	71 00	1,430 83	71 00	-----	4.94	2.97	7 61
Coventry.....	2,968 05	266 52	-----	\$20 00	-----	153 00	3,407 57	147 00	-----	3.25	3.23	9 46
Ellington.....	2,579 59	218 58	9 00	-----	-----	57 00	2,864 17	57 00	-----	2.39	2.37	7 28
Hebron.....	1,713 16	129 16	4 75	8 10	-----	63 00	1,918 17	63 00	150 00	3.07	2.89	8 25
Mansfield.....	2,686 85	238 42	44 32	-----	-----	80 00	3,049 59	80 00	-----	2.07	2.77	7 77
Somers.....	2,563 00	199 03	-----	120 00	-----	99 00	2,981 03	99 00	-----	3.68	3.56	10 64
Stafford.....	6,226 74	1,101 79	361 72	30 00	4,891 34	1,322 31	13,933 90	359 00	24,871 44	6.69	3.73	9 04
Union.....	899 00	60 75	-----	-----	-----	40 00	999 75	40 00	-----	4.32	4.32	9 08
Vernon.....	11,415 10	1,514 52	2,283 72	165 57	-----	952 59	16,331 52	231 50	266 25	5.44	3.49	9 16
Willington.....	1,167 78	102 39	10 37	-----	-----	42 00	1,322 54	42 00	-----	3.04	2.87	6 16
13 Towns.	\$36,429 23	\$4,098 83	\$2,765 88	\$343 69	\$4,891 34	\$2,993 28	\$51,522 25	\$1,277 25	\$25,294 69	4.30	3.16	\$8 62
												\$16 11

* Of taxable property appropriated for Public Schools, in mills and roots.

† Of taxable property appropriated for Public Schools by town tax, in mills and roots.

SUMMARY BY COUNTIES.

COUNTIES.	Grand List.	RECEIPTS.						Total.	Districts Taxing.	
		School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Voluntary Contrib.			Other Sources.
Hartford.....	\$7,066,872	\$67,707 00	\$6,297 81	\$3,026 29	\$106,276 46	\$110,647 36	\$698 43	\$32,138 65	\$416,882 00	41
New Haven.....	94,032,137	95,026 50	5,597 84	684 96	163,014 12	278,055 50	2,638 88	18,994 04	563,921 84	22
New London.....	39,035,235	38,479 50	6,576 54	741 02	77,016 91	48,590 81	1,265 01	4,290 08	176,951 87	11
Fairfield.....	58,491,849	66,204 00	5,875 39	1,358 33	200,671 42	25,459 04	816 37	4,277 92	304,752 47	12
Windham.....	17,335,108	22,475 25	3,407 01	134 71	44,155 31	12,690 12	184 01	4,391 25	87,437 66	13
Litchfield.....	26,008,002	25,825 50	5,119 65	602 66	80,119 40	5,842 35	873 18	743 37	119,126 11	21
Middlesex.....	18,945,493	16,776 00	3,623 72	911 57	38,166 37	12,729 01	166 54	1,483 62	73,856 83	6
Tolland.....	8,261,791	12,161 25	2,433 69	263 66	26,134 27	5,790 23	202 02	3,453 29	50,438 41	2
The State.	\$349,177,597	\$344,835 00	\$38,835 65	\$7,723 20	\$825,554 26	\$499,804 42	\$6,844 44	\$69,772 22	\$1,793,369 19	128

SUMMARY BY COUNTIES.

COUNTIES.	Teachers' Wages.	Fuel, etc.	Repairs.	Libraries & Apparatus.	New Buildings.	EXPENSES.		Cost of Superintendence.	District Indebtedness.	Per cent.	Per cent.	Paid for each child enumerated.	Paid for each child in average attendance.
						Other Objects.	Total.						
Hartford.....	\$278,669 57	\$40,141 51	\$40,426 17	\$3,779 04	\$44,173 81	\$46,014 36	\$453,144 46	\$5,303 09	\$525,675 56	3.00	2.95	\$13.56	\$26 31
New Haven.....	363,672 38	42,876 18	22,517 02	4,543 75	23,664 44	54,904 27	512,178 84	8,027 80	38,168 89	4.92	1.73	16 21	20 87
New London.....	124,074 17	12,177 39	7,814 02	952 35	4,857 69	11,486 13	162,262 51	5,146 40	184,387 39	3.34	1.97	8 20	18 64
Fairfield.....	216,369 81	26,366 04	15,309 16	1,216 76	30,009 39	20,540 05	399,811 42	6,004 28	184,387 39	3.95	3.43	9 49	19 13
Windham.....	62,599 81	7,318 18	6,487 41	1,065 91	---	6,737 50	84,268 81	1,423 18	30,909 71	3.54	2.54	8 43	19 06
Litchfield.....	89,622 07	10,163 58	6,751 13	932 52	8,963 80	4,029 68	120,462 71	2,548 72	21,827 21	3.36	3.68	9 71	18 90
Middlesex.....	55,135 60	5,644 53	2,839 92	358 40	1,300 00	9,950 51	74,779 91	1,352 43	75,727 28	2.77	2.01	8 62	18 62
Tolland.....	36,429 23	4,098 83	2,765 88	343 69	4,891 34	2,993 28	51,522 25	1,277 25	25,204 69	4.30	3.16	8 62	16 11
The State.	\$1,227,412 60	\$48,786 24	\$104,911 91	\$13,192 42	\$117,860 67	\$156,207 22	\$1,768,371 06	\$31,083 16	\$1,308,555 61	4.01	2.36	\$70 76	\$20 89

* Of taxable property appropriated for Public Schools, in mills and toaths.

† Of taxable property appropriated for Public Schools by town tax, in mills and toaths.

HARTFORD COUNTY.

SCHOLARS.

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TOWNS.	Population. 1880.	Enumerat'd January, 1887.	Registered.				In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per cent. attend- ance on basis of enumeration.	Per cent. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.				Winter.	Summer.			
Hartford	42,551	9,991	7,274	6,210	5,660	350	1,995	1,772	73	5,003	4,802	72.8	49.0	82.6
Avon	1,057	257	204	178	174	3	16	14	3	155	136	79.3	56.6	82.6
Berlin	2,385	585	461	382	354	---	43	88	2	287	271	78.8	47.7	75.8
Bloomfield	1,346	261	249	202	176	---	---	18	---	155	122	95.4	53.0	69.9
Bristol	5,347	1,286	1,220	1,032	981	65	3	219	9	829	803	94.9	63.4	81.0
Burlington	1,224	268	258	224	194	3	14	8	1	162	143	96.2	56.9	72.9
Canton	2,301	519	539	487	465	18	3	36	1	414	403	103.8	78.7	85.8
East Granby	754	142	120	109	88	8	---	10	---	90	71	84.5	56.7	81.7
East Hartford	3,900	890	895	752	614	18	42	72	2	567	433	100.5	56.1	73.2
East Windsor	3,019	773	726	613	580	5	1	55	12	473	435	93.9	58.7	76.1
Enfield	6,755	1,766	1,116	944	889	22	384	280	15	781	752	63.2	43.4	83.6
Farmington	3,017	798	689	633	601	19	13	84	5	497	451	86.3	50.4	76.8
Glastonbury	3,580	726	659	539	444	5	5	52	2	426	333	90.7	52.3	77.2
Granby	1,340	268	260	213	187	3	2	30	3	175	149	97.0	60.3	81.0
Hartland	613	129	158	119	105	13	---	---	---	82	71	122.8	59.3	68.3
Manchester	6,462	1,774	1,523	1,255	1,210	39	37	428	23	955	867	85.8	51.3	73.9
Marlborough	391	71	73	58	44	---	---	3	1	39	33	97.2	50.7	70.6
New Britain	13,979	3,882	2,002	1,839	1,751	113	1,450	483	29	1,538	1,487	53.1	38.9	84.2
Newington	934	257	214	180	146	3	25	19	2	143	113	83.2	49.8	78.5
Plainville	1,030	410	390	335	340	14	---	77	---	270	280	95.1	67.0	81.4
Rocky Hill	1,108	231	200	165	146	7	8	21	2	121	110	86.6	50.0	74.2
Simsbury	1,830	405	426	368	286	9	21	29	3	272	206	105.1	59.0	73.3
South Windsor	5,411	1,365	1,369	1,098	846	45	---	36	13	874	805	100.3	61.5	86.3
South Windsor	1,902	449	400	366	293	16	6	40	2	290	215	89.0	56.2	76.6
Suffield	3,225	678	575	492	446	10	62	42	1	370	341	84.8	52.5	75.8
West Hartford	1,828	356	354	307	285	15	---	46	2	244	221	99.4	65.3	78.5
Wethersfield	2,173	304	353	268	245	13	---	12	3	212	183	116.1	64.9	77.0
Windsor	3,958	586	617	595	430	22	46	20	5	369	317	105.3	58.5	73.6
Windsor Locks	2,332	705	543	486	454	8	---	162	11	371	374	77.0	52.9	79.2
29 Towns.	125,382	30,132	23,927	20,377	18,434	855	3,473	4,165	225	16,164	14,927	79.4	51.5	80.1

NEW HAVEN COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Registered.				In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per ct. attend- ance on basis of enumeration.	Per ct. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.				Winter.	Summer.			
New Haven City	-----	17,259	14,383	13,864	13,950	2,138	3,709	309	9,960	9,982	83.3	57.7	72.1	
Westville	-----	372	309	253	247	10	53	3	197	193	83.0	52.4	78.0	
South	-----	60	45	41	33	---	19	---	29	15	75.0	36.6	59.4	
Beacon Falls	62,882	17,691	14,737	14,158	14,230	2,148	3,781	312	10,186	10,190	83.3	57.5	71.8	
Bethany	379	177	162	111	103	2	37	---	93	80	91.5	49.3	80.8	
Branford	637	116	113	94	62	3	23	5	66	36	97.4	43.9	65.4	
Cheshire	3,047	714	789	635	540	33	120	13	479	389	110.5	60.7	73.8	
Derby	2,284	395	346	283	268	5	49	5	204	180	87.6	48.6	69.0	
East Haven	11,650	3,676	2,899	2,479	2,478	88	373	21	1,856	1,794	78.8	49.6	73.6	
Guilford	3,057	114	111	94	71	---	8	2	65	51	97.3	50.9	68.6	
Hamden	2,782	566	513	452	388	28	44	8	338	281	90.6	54.7	73.7	
Madison	3,468	771	668	505	516	---	100	16	410	366	86.6	50.3	71.7	
Meriden	1,672	268	245	219	179	5	12	8	169	140	91.4	57.6	77.6	
Middlebury	18,340	5,263	4,035	3,256	3,145	88	594	28	2,553	2,588	76.6	48.8	80.3	
Middlebury	687	118	92	80	64	3	4	9	56	42	77.9	41.5	68.0	
Milford	3,347	690	483	451	433	19	136	13	378	324	70.0	50.8	79.4	
Naugatuck	4,274	1,113	1,014	817	812	26	215	11	552	561	91.1	50.0	68.3	
North Branford	1,025	131	145	126	118	8	9	---	93	82	112.2	66.7	71.7	
North Haven	1,763	335	298	255	243	6	28	2	196	167	88.9	54.1	72.8	
Orange	3,341	840	1,010	741	633	13	68	22	528	495	120.2	60.9	77.4	
Oxford	1,120	227	234	201	203	4	25	5	144	130	103.0	60.3	67.8	
Prospect	492	95	89	71	58	---	18	---	48	35	93.6	44.7	65.9	
Seymour	2,318	762	698	577	550	10	54	2	432	435	91.6	56.8	76.9	
Southbury	1,740	248	252	202	175	2	13	---	134	116	101.6	50.4	66.3	
Wallingford	4,686	1,210	1,162	1,115	1,112	24	171	6	775	751	96.0	63.0	68.5	
Waterbury	-----	590	522	435	408	3	55	2	333	284	88.5	52.3	73.1	
Centre	-----	5,830	4,596	4,057	3,787	151	823	95	3,711	3,142	78.8	58.7	77.4	
Wolcott	20,270	6,420	5,118	4,492	4,195	154	879	97	4,044	3,426	82.2	58.1	85.9	
Woodbridge	493	121	118	96	103	---	12	---	69	77	97.5	60.3	73.3	
25 Towns.	156,523	42,234	35,516	31,750	30,792	924	6,788	575	23,091	22,815	84.0	55.4	74.9	

NEW LONDON COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Registered.				In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per ct. attend- ance on basis of enumeration.	Per ct. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.				Winter.	Summer.			
New London	10,537	2,326	2,313	1,960	1,982	63	86	132	15	1,543	1,562	99.4	66.7	78.7
Norwich Town .....	.....	288	233	186	188	4	27	28	3	130	143	80.0	48.9	75.4
" Central .....	.....	1,499	935	830	841	35	357	242	0	690	729	62.3	47.3	84.9
" West Chelsea .....	.....	960	740	596	556	0	180	40	7	472	444	77.0	47.7	79.5
" other Districts .....	.....	2,515	1,681	1,342	1,315	8	164	632	88	965	962	66.8	38.3	72.5
" complete	21,143	5,262	3,589	2,954	2,900	47	728	942	107	2,266	2,278	68.2	43.1	77.6
Bozrah	1,155	231	279	201	185	1	---	7	4	140	126	120.7	57.5	68.9
Colchester	2,974	613	573	528	460	8	12	79	13	397	364	93.4	62.0	77.0
East Lyme	1,731	400	426	345	290	18	21	12	4	235	220	106.5	56.8	71.6
Franklin	686	133	111	103	62	8	---	12	---	85	33	83.4	44.3	71.5
Griswold	2,745	602	563	449	398	24	4	15	14	324	281	93.5	41.8	59.6
Groton	5,128	1,072	1,026	881	810	20	39	41	6	665	588	95.7	58.4	74.1
Lebanon	1,845	355	366	310	240	12	4	23	5	246	178	103.1	59.7	77.1
Ledyard	1,373	274	286	242	164	30	3	42	3	170	117	104.0	52.3	70.6
Lisbon	630	85	88	79	48	1	---	1	1	59	38	103.5	57.0	70.3
Lyme	1,025	193	193	153	148	12	6	15	3	109	99	100.9	52.2	69.1
Montville	2,664	576	580	474	413	12	26	9	1	341	304	100.7	55.9	72.7
North Stoughton	1,769	390	415	338	297	12	6	16	10	254	190	106.4	50.9	74.5
Old Lyme	1,397	271	240	228	154	12	---	48	8	148	97	88.5	45.2	50.8
Preston	2,532	665	650	555	459	19	1	54	2	398	334	97.7	55.0	72.1
Salem	574	162	113	100	65	8	1	17	1	69	47	110.7	56.8	70.3
Sprague	3,207	1,002	471	363	356	10	409	160	11	259	257	47.0	25.7	71.7
Stoughton	7,355	1,635	1,318	1,141	1,050	41	228	258	16	668	568	80.6	37.8	56.4
Stoughton	1,186	302	274	245	194	6	---	33	4	155	118	90.7	45.2	62.1
Watertown	2,701	607	565	465	392	14	19	59	3	290	263	82.3	45.5	64.5
21 Towns	74,338	17,102	14,439	12,115	11,027	387	1,596	1,975	231	8,821	8,062	84.4	49.3	72.9

FAIRFIELD COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Registered.			In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per cent. attend- ance on basis of enumeration.	Per cent. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.			Winter.	Summer.			
Bridgeport	20,148	9,045	6,950	6,335	6,050	183	1,480	457	5,271	5,070	76.8	57.1	83.5
Danbury	11,666	3,740	2,517	2,169	2,017	67	783	47	1,814	1,635	67.0	46.5	83.1
Rethel	2,727	671	631	580	531	2	72	3	419	352	94.0	57.4	63.6
Brookfield	1,152	247	216	208	169	2	21	2	127	109	87.4	47.7	62.6
Darien	1,049	361	291	231	222	6	36	8	157	151	80.6	42.6	67.9
Easton	1,143	455	155	135	127	4	2	--	97	84	100.0	58.3	69.0
Fairfield	3,748	1,886	1,210	1,098	892	27	173	2	349	308	80.8	43.1	68.0
Greenwich	2,490	830	704	622	543	6	357	29	773	640	64.1	37.4	70.9
Huntington	1,157	202	137	158	149	4	18	6	454	368	84.8	49.5	70.2
Monroe	2,673	535	466	442	449	7	31	3	102	98	92.5	49.5	65.1
New Canaan	791	138	150	125	125	5	1	1	72	67	108.7	38.4	40.1
New Fairfield	4,013	840	743	691	671	14	84	5	454	422	88.4	52.1	64.3
Newtown	13,956	3,373	2,592	2,042	1,906	59	500	33	1,639	1,576	74.1	47.9	81.4
Norwalk	1,540	224	186	165	156	4	20	22	102	86	83.0	41.9	58.5
Redding	2,028	392	400	349	331	19	5	3	233	198	102.0	54.9	63.3
Ridgefield	828	141	159	119	101	17	3	--	73	62	112.7	47.8	61.3
Sherman	11,297	3,137	2,008	1,837	1,630	51	548	58	1,330	1,254	64.0	41.1	74.5
Stamford	4,251	1,448	1,113	970	908	12	30	7	729	715	89.1	57.8	79.4
Stratford	1,323	247	216	192	189	--	4	6	135	128	87.4	53.2	60.0
Trumbull	918	154	130	130	105	5	8	--	73	51	88.3	40.2	52.7
Weston	3,477	798	591	519	385	12	122	85	325	266	74.0	35.7	63.1
Westport	1,864	338	323	293	265	--	10	5	185	180	95.5	54.0	65.4
Wilton													
23 Towns	112,042	29,464	22,470	19,876	18,366	528	4,451	699	15,167	13,987	76.2	49.4	76.2

WINDHAM COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Registered.				In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per cent. attend- ance on basis of enumeration.	Per cent. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.				Winter.	Summer.			
Brooklyn	2,308	623	537	410	364	8	---	131	26	344	273	86.1	49.5	79.7
Ashford	1,041	158	168	137	91	18	---	5	5	106	64	106.3	53.8	74.5
Canterbury	1,272	209	220	189	121	15	3	4	3	138	95	105.2	55.7	71.5
Chaplin	627	115	126	88	79	8	---	10	4	66	62	109.5	55.6	76.6
Eastford	855	122	139	116	97	9	---	13	1	87	79	113.9	68.0	77.9
Hampton	827	164	176	149	109	13	---	2	---	112	87	107.3	60.6	77.1
Killingly	6,921	1,578	1,515	1,224	1,070	49	---	141	43	874	741	96.0	51.1	70.4
Plainfield	4,021	979	717	644	644	18	33	03	16	513	500	91.6	51.7	74.4
Pomfret	1,470	287	288	216	200	11	3	15	1	162	152	160.3	54.7	75.4
Putnam	5,327	1,610	618	528	514	25	63	381	31	428	416	26.2	26.2	80.9
Sterling	590	98	95	85	75	6	2	---	---	60	54	96.9	58.1	73.7
Thompson	957	197	235	166	166	4	4	6	---	119	108	119.2	57.6	69.6
Windham	5,951	1,415	759	572	542	32	34	211	39	440	417	53.6	58.2	76.9
Windsor	8,064	1,914	1,228	993	921	39	64	321	9	701	720	64.1	38.7	77.3
Woodstock	2,639	520	459	398	352	8	13	23	7	314	274	94.0	56.5	78.4
15 Towns.	42,670	9,989	7,490	5,988	5,339	263	1,660	1,356	185	4,524	4,042	74.9	42.8	75.6

LITCHFIELD COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Registered.			In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. attend- ance on basis of enumeration.	Per cent. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.			Winter.	Summer.		
Litchfield	3,410	705	775	551	468	45	96	6	381	301	102.8	66.9
Barkhamsted	1,297	287	273	229	206	13	33	11	163	153	95.1	72.6
Belechem	655	107	104	91	56	5	9	--	47	43	97.2	61.2
Bridgewater	768	149	150	129	100	7	12	1	90	71	100.6	54.0
Canaan	1,157	205	209	146	131	7	10	2	92	93	101.9	66.7
Colebrook	1,148	270	313	239	203	11	7	--	185	163	115.9	64.4
Cornwall	1,583	344	326	266	207	7	73	13	213	166	94.7	78.7
Goshen	1,093	230	201	186	141	1	5	1	124	96	87.4	80.1
Harwinton	1,016	230	198	183	145	10	17	2	140	102	88.1	67.2
Kent	1,622	341	315	265	239	5	11	2	171	154	92.4	73.7
Morris	627	106	110	97	70	6	10	2	70	57	103.7	64.5
New Hartford	3,302	721	615	568	449	7	3	--	367	293	85.3	79.3
New Milford	3,997	808	810	660	555	32	93	10	438	386	100.2	68.9
Norfolk	1,418	364	360	287	209	9	84	19	207	186	100.6	67.8
North Canaan	1,537	331	336	307	265	7	45	8	215	185	101.5	70.7
Plymouth	2,350	481	453	405	385	13	25	1	311	311	94.4	69.9
Roxbury	950	182	190	149	140	10	8	--	103	106	107.6	78.7
Salisbury	3,715	868	686	555	538	22	132	16	368	345	79.0	72.3
Sharon	2,580	481	469	393	328	26	20	5	244	197	97.5	65.0
Thomaston	3,225	822	695	604	557	28	115	8	504	431	84.5	61.1
Torrington	3,327	1,081	1,074	868	843	10	30	30	650	628	99.3	80.5
Warren	639	108	102	71	69	10	17	3	47	53	94.4	74.7
Washington	1,590	298	273	263	191	12	10	1	174	125	96.0	71.4
Watertown	1,897	417	410	330	276	35	32	3	243	172	98.3	65.8
Winchester	5,142	1,098	762	683	643	28	53	11	531	488	72.1	68.4
Woodbury	2,149	444	394	330	251	10	66	3	242	161	88.7	69.3
26 Towns	52,044	11,478	10,565	8,788	7,725	376	1,119	156	6,320	5,466	92.0	71.3

MIDDLESEX COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Registered.			In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per cent. attend- ance on basis of enumeration.	Per cent. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.			Winter.	Summer.			
Middletown	-----	1,158	1,035	913	827	8	85	68	715	607	89.3	57.0	75.9
" City	-----	1,481	1,085	864	746	45	397	286	672	582	73.2	42.3	77.8
" complete	-----	2,639	2,120	1,777	1,573	53	482	354	1,387	1,189	80.3	48.8	76.9
Haddam	2,410	481	506	445	353	3	22	17	303	227	105.2	55.0	86.4
Chatham	1,967	465	456	396	336	13	--	52	319	269	98.0	63.2	86.3
Chester	1,177	257	221	183	174	2	2	36	141	124	85.9	51.5	74.2
Clinton	1,462	248	42	38	29	--	191	16	26	21	16.9	9.4	70.1
Cromwell	1,640	378	408	329	306	3	1	4	242	217	107.9	66.7	72.2
Durham	990	145	148	129	87	11	--	6	92	59	102.0	52.0	69.9
East Haddam	3,032	538	534	430	402	13	11	9	339	273	99.2	56.8	73.5
Essex	1,855	326	307	272	240	9	11	2	212	194	94.1	62.2	79.3
Killingworth	748	102	114	100	80	8	--	10	67	62	111.7	63.2	71.6
Middlefield	928	202	179	153	138	1	10	6	115	99	88.6	52.9	73.5
Old Saybrook	1,302	307	222	191	165	1	56	30	142	115	72.3	41.8	72.2
Portland	4,157	987	906	749	711	19	20	79	564	547	91.7	56.2	76.5
Saybrook	1,362	236	251	219	218	20	--	4	190	177	106.3	77.7	83.9
Westbrook	878	145	149	139	119	8	--	2	95	83	102.8	61.3	69.0
15 Towns.	35,589	7,456	6,563	5,541	4,931	173	803	636	4,234	3,656	88.0	52.9	75.3

TOLLAND COUNTY.

TOWNS.	Population, 1880.	Enumerat'd January, 1887.	Different Scholars.	Registered.			In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per cent. attend- ance on basis of enumeration.	Per cent. attend- ance on basis of registration.
				Winter.	Summer.	Over 16.				Winter.	Summer.			
Tolland.....	1,169	233	238	210	177	14	3	5	1	157	117	102.1	58.8	70.8
Andover.....	428	71	67	53	35	4	--	--	--	41	24	94.3	45.7	73.8
Bolton.....	512	144	135	105	99	9	--	19	2	82	68	93.7	52.0	73.5
Columbia.....	757	188	108	163	139	11	--	1	1	126	114	105.3	63.8	79.4
Coventry.....	2,043	360	378	260	260	21	14	14	1	216	208	105.0	53.8	76.8
Ellington.....	1,569	393	209	292	229	6	6	37	7	175	178	76.1	44.9	74.7
Hebron.....	1,243	233	232	193	120	4	3	9	--	147	87	99.6	50.2	74.7
Mansfield.....	2,154	392	398	317	295	12	2	6	--	240	230	101.5	61.1	78.2
Somers.....	1,242	280	272	247	210	9	1	20	1	196	175	97.1	66.2	81.1
Stafford.....	4,455	1,007	735	560	555	30	178	160	12	446	442	72.9	44.0	79.6
Union.....	539	110	105	80	70	7	--	16	--	65	57	95.4	55.4	81.3
Vernon.....	6,945	1,786	1,556	1,249	1,213	30	63	39	19	1,045	911	87.1	54.7	79.4
Willington.....	1,086	208	211	162	153	4	1	5	3	119	112	101.4	55.5	73.3
13 Towns.....	24,112	5,405	4,824	3,874	3,555	161	269	331	47	3,064	2,723	89.2	53.5	77.8

SUMMARY BY COUNTIES.

COUNTIES.	Population, 1880.	Enumerat'd January. 1887.	Registered.				In Private Schools.	In no School.	Between 8 and 14 in no School.	Average Attendance		Per cent. who attended some part of the year.	Per ct. attend- ance on basis of enumeration.	Per ct. attend- ance on basis of registration.
			Different Scholars.	Winter.	Summer.	Over 16.				Winter.	Summer.			
Hartford	125,382	30,132	23,927	20,377	18,434	855	3,473	4,165	225	16,164	14,927	79.4	51.5	80.1
New Haven	156,523	42,234	35,516	31,750	30,792	924	4,322	6,788	575	23,991	22,815	84.0	55.4	74.9
New London	74,338	17,102	14,439	12,115	11,027	387	1,596	1,975	231	8,821	8,062	84.4	49.3	72.9
Fairfield	112,042	29,464	22,470	19,876	18,566	528	3,220	4,451	699	15,167	13,987	76.2	49.4	76.2
Windham	42,670	9,989	7,490	5,988	5,339	263	1,660	1,356	185	4,524	4,042	74.9	42.8	75.6
Litchfield	52,044	11,478	10,565	8,725	7,725	376	610	1,119	156	6,320	5,466	92.0	51.3	71.3
Middlesex	35,589	7,456	6,563	5,541	4,931	173	803	636	66	4,234	3,656	88.0	52.9	75.3
Tolland	24,112	5,405	4,824	3,874	3,555	161	269	331	47	3,064	2,723	89.2	53.5	77.8
The State.	622,700	153,260	125,794	108,309	100,169	3,667	15,953	20,821	2,184	82,285	75,678	82.0	51.5	75.8

HARTFORD COUNTY.

TOWNS.	Male.		Female.		Average Wages per month.		No. of teachers whose av. wages was \$20 or less per month.		No. of teachers whose av. wages was from \$20 to \$25 per mo.		No. of teachers whose av. wages was from \$25 to \$30 per mo.		No. of teachers whose av. wages was from \$30 to \$40 per mo.		No. of teachers whose av. wages was from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.	
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.					
Hartford.....	24	24	141	141	\$130 33	\$61 73	--	--	--	--	--	--	--	--	--	--	30	164	1	34	--
Avon.....	2	2	5	5	29 00	28 16	--	--	--	--	1	4	1	2	--	--	--	7	3	4	--
Berlin.....	--	--	11	11	---	38 27	--	--	--	--	--	--	--	10	--	1	--	10	2	5	--
Bloomfield.....	--	--	9	9	---	27 77	--	5	--	--	--	2	--	--	--	--	--	7	4	4	--
Bristol.....	4	4	25	25	88 00	41 66	--	--	--	--	--	2	1	12	--	11	--	29	3	17	--
Burlington.....	--	--	9	9	---	26 84	--	4	--	--	--	4	--	--	--	--	--	8	1	1	--
Canton.....	2	2	12	12	105 50	40 09	--	--	--	--	--	--	1	9	--	6	14	--	--	--	--
East Granby.....	2	--	5	6	27 00	24 36	--	--	5	2	1	--	--	--	--	--	--	4	7	1	--
East Hartford.....	2	2	18	18	70 00	33 64	--	--	1	1	--	1	16	--	--	--	--	20	7	3	--
East Windsor.....	4	3	13	14	59 96	31 45	--	--	--	--	2	6	2	8	--	--	--	15	5	8	2
Enfield.....	3	27	27	27	103 51	35 29	--	--	--	--	--	1	--	--	--	--	--	30	2	10	1
Farmington.....	3	15	14	15	78 00	39 68	--	--	--	--	--	10	1	10	--	4	--	17	1	10	--
Glastonbury.....	2	1	18	18	31 33	26 34	--	1	7	--	--	--	--	--	--	--	--	12	6	4	--
Granby.....	1	--	9	10	31 12	26 39	--	1	4	--	--	3	--	2	--	--	--	11	6	3	--
Hartland.....	1	--	8	9	21 92	21 92	--	--	1	9	--	--	--	--	--	--	--	8	1	--	--
Manchester.....	3	--	21	22	74 42	37 78	--	--	--	--	--	--	1	14	--	8	--	24	4	14	1
Marlborough.....	1	--	2	3	36 00	22 10	--	2	--	--	--	--	1	--	--	--	--	3	--	--	--
New Britain.....	3	3	40	40	161 37	45 50	--	--	--	--	--	--	--	--	--	40	--	43	2	20	1
Newington.....	1	1	5	4	32 00	31 11	--	--	--	--	--	1	1	7	--	--	--	8	--	1	--
Plainville.....	1	1	7	7	126 32	38 85	--	--	--	--	--	--	--	7	--	--	--	5	--	3	--
Rocky Hill.....	1	--	3	4	28 11	30 04	--	--	--	--	--	2	--	2	--	--	--	8	--	--	--
Simsbury.....	3	1	11	13	29 25	31 64	--	--	1	--	--	8	1	4	--	1	--	1	6	--	--
Southbury.....	5	5	24	24	98 82	39 88	--	--	--	--	--	--	--	--	--	--	--	28	2	--	--
South Windsor.....	1	1	11	11	35 00	32 45	--	--	--	1	--	--	1	13	--	10	--	26	2	--	--
Suñfeld.....	1	--	15	16	36 00	34 28	--	--	--	--	--	4	1	7	--	--	--	9	4	3	--
West Hartford.....	2	2	10	10	64 44	39 20	--	--	--	--	--	--	1	--	--	--	--	14	1	4	--
Wethersfield.....	1	1	7	7	100 00	27 69	--	--	--	--	--	--	1	--	--	--	--	10	9	6	--
Windsor.....	6	6	9	8	59 11	35 68	--	--	--	--	--	3	2	2	--	--	--	5	--	3	--
Windsor Locks.....	1	1	8	8	153 87	36 50	--	--	--	--	--	--	--	8	--	--	--	9	--	1	--
29 Towns.	80	68	498	505	\$93 88	\$42 86	--	4	3	37	6	52	17	192	1	111	550	79	158	7	

NEW HAVEN COUNTY.

TEACHERS.

181

TOWNS.	Male.		Female.		Average Wages per month.		No. of teachers whose wages were \$20 or less per month.		No. of teachers whose wages were from \$20 to \$25 per mo.		No. of teachers whose wages were from \$25 to \$30 per mo.		No. of teachers whose wages were from \$30 to \$40 per mo.		No. of teachers whose wages were from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
New Haven City	19	19	285	285	\$103 33	\$56 76	--	--	--	--	--	--	--	--	66	304 20	--	--	1	1
" Westville	1	1	6	6	100 00	48 83	--	--	--	--	--	--	--	--	9	7	--	--	--	--
" South.	--	--	--	1	--	40 00	--	--	--	--	--	--	--	--	--	1	--	--	--	--
" complete.	20	20	292	292	\$188 66	56 53	--	--	--	--	--	--	--	--	72	312 20	--	--	1	1
Beacon Falls.	--	--	4	4	--	30 00	--	--	--	2	--	--	--	--	--	4	--	--	--	--
Bethany	--	--	5	5	--	28 60	--	--	--	--	--	--	--	--	--	4	--	--	--	--
Branford	--	--	4	4	--	32 85	--	--	--	--	4	--	--	--	--	15	--	--	--	--
Cheshire.	1	1	14	14	126 33	32 85	--	--	--	--	4	--	--	--	--	15	--	--	--	--
Derby	1	1	12	12	30 00	32 70	--	--	--	1	5	--	--	--	--	12	--	--	--	--
East Haven.	7	7	48	48	97 28	41 56	--	--	--	--	7	--	--	--	31	54 2	4	--	4	4
East Haven.	--	--	--	3	--	32 00	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Guilford	4	4	12	12	53 16	29 32	--	2	--	6	--	--	--	--	--	3	--	--	--	--
Hamden	1	1	15	15	32 00	31 86	--	--	--	1	--	--	--	--	--	10	--	--	--	--
Madison	7	7	15	15	30 00	26 00	--	--	--	--	11	--	--	--	--	10	--	--	--	--
Meriden	2	2	11	11	114 21	44 84	--	--	--	--	--	--	--	--	--	9	--	--	--	--
Middlebury.	10	9	66	66	114 21	44 84	--	--	--	--	--	--	--	--	62	66 8	25	--	--	--
Milford	2	2	10	10	84 62	33 76	--	--	--	1	--	--	--	--	--	4	--	--	--	--
Naugatuck	2	2	18	18	100 00	37 77	--	--	--	--	2	--	--	--	--	10	--	--	--	--
North Branford.	2	2	1	1	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--
North Haven	--	--	5	5	32 00	25 55	--	--	--	--	--	--	--	--	--	18	--	--	--	--
Orange	1	1	9	9	--	33 68	--	--	--	--	--	--	--	--	--	4	--	--	--	--
Oxford	1	1	19	19	38 00	36 56	--	--	--	1	1	--	--	--	2	8	--	--	--	--
Prospect	1	1	10	10	24 00	22 16	3	3	1	6	2	1	1	16	1	19	3	--	--	--
Seymour	--	--	3	3	--	24 00	--	--	--	--	--	--	--	--	--	11	--	--	--	--
Southbury.	1	1	11	11	123 08	33 45	--	--	--	3	--	--	--	--	--	11	--	--	--	--
Southbury.	--	--	8	8	--	25 40	--	--	--	--	--	--	--	--	--	11	--	--	--	--
Wallingford	3	2	25	25	89 00	39 18	--	--	--	4	3	--	--	--	--	8	--	--	--	--
Waterbury	1	1	11	11	40 00	34 38	--	--	--	1	6	--	--	--	16	24	1	--	--	--
" Center.	5	5	71	71	134 00	48 77	--	--	--	--	--	--	--	--	71	71 5	--	--	--	--
" complete.	6	6	82	82	118 33	46 84	--	--	--	--	--	--	--	--	--	81	--	--	--	--
Wolcott	--	--	6	6	--	24 33	--	--	--	6	--	--	--	--	--	10	--	--	--	--
Woodbridge.	3	3	3	3	37 54	35 28	--	--	--	--	--	--	--	--	--	6	--	--	--	--
25 Towns.	67	66	692	695	\$114 69	\$46 05	--	5	3	30	3	51	10	170	257	728 65	63	--	2	2

NEW LONDON COUNTY.

TOWNS.	Male.		Female.		Average Wages per month.		No. of teachers whose av. wages was \$20 or less per month.		No. of teachers whose av. wages was \$25 per mo.		No. of teachers whose av. wages was \$30 to \$40 per mo.		No. of teachers whose av. wages was \$50 per mo.		Continuously Employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.		
	Winter.		Summer.		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.								
	Winter.	Summer.	Winter.	Summer.																
New London.....	2	2	38	38	\$115 00	\$8 58	--	--	--	--	--	--	--	38	40	1	--			
Norwich Town.....	1	1	4	4	100 00	37 50	--	--	--	--	--	--	--	--	5	--	--	--		
" Central.....	2	2	31	31	125 00	50 00	--	--	--	--	--	--	--	--	33	1	3	--		
" W. Chelsea.....	1	1	15	15	100 00	34 52	--	--	--	--	--	--	--	--	16	--	--	--		
" other Dist's.....	5	5	34	34	84 00	37 47	--	--	3	3	--	--	1	14	37	2	--	--		
" complete.....	9	9	84	84	96 66	41 56	--	--	3	3	--	--	33	45	91	3	3	--		
Bozrah.....	3	--	4	7	30 00	26 52	--	--	2	2	--	--	1	--	2	--	2	--		
Colchester.....	5	3	12	14	43 62	30 23	--	--	4	4	--	--	5	--	12	3	2	--		
East Lyme.....	6	3	5	8	34 90	23 74	--	--	1	5	--	--	2	1	9	2	--	--		
Franklin.....	3	--	4	4	28 33	23 75	--	--	2	2	--	--	--	--	2	--	--	--		
Griswold.....	3	3	12	13	50 30	31 08	--	--	2	3	--	--	4	2	15	3	2	--		
Groton.....	8	5	14	16	43 23	36 76	--	--	1	3	--	--	1	5	16	5	2	--		
Lebanon.....	5	--	10	15	26 88	23 74	--	--	2	10	--	--	1	--	9	1	--	--		
Ledyard.....	5	--	8	11	22 90	19 68	--	--	4	4	--	--	--	--	3	1	--	--		
Lisbon.....	1	1	5	5	22 00	20 98	--	--	1	3	--	--	--	--	6	1	--	--		
Lyme.....	4	3	7	7	25 93	19 77	--	--	3	3	--	--	--	--	1	3	2	--		
Montville.....	3	1	12	14	46 25	31 93	--	--	1	1	--	--	2	3	12	4	2	--		
North Stonington.....	7	1	8	14	31 89	25 18	--	--	2	8	--	--	4	--	25	--	4	1		
Old Lyme.....	4	2	4	6	27 75	26 66	--	--	1	4	--	--	1	--	3	1	--	--		
Preston.....	10	5	8	13	35 61	23 47	--	--	5	4	--	--	1	--	11	7	2	1		
Salem.....	2	--	5	7	23 50	21 65	--	--	1	2	--	--	--	--	1	2	--	--		
Sprague.....	2	2	8	8	60 00	34 77	--	--	--	--	--	--	4	2	8	4	3	--		
Stonington.....	9	6	23	26	54 17	38 93	--	--	1	2	--	--	1	4	25	5	7	--		
Voluntown.....	2	1	7	8	47 77	25 60	--	--	--	--	--	--	--	2	4	--	--	--		
Waterford.....	6	2	7	11	38 87	31 72	--	--	1	2	--	--	3	1	9	--	1	--		
21 Towns.	101	46	281	329	\$48 23	\$34 96	2	34	26	67	24	53	22	76	8	97	394	45	34	3

FAIRFIELD COUNTY.

TOWNS.	Male.		Female.		Average wages per month.		No. of teachers whose av. wages was \$20 or less per month.				No. of teachers whose av. wages was from \$20 to \$25 per mo.				No. of teachers whose av. wages was from \$25 to \$30 per mo.				No. of teachers whose av. wages was from \$30 to \$40 per mo.				Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.								
Bridgeport.....	5	4	120	119	\$167 50	\$8 11	--	--	--	--	--	--	--	--	--	--	--	--	--	120	--	113	11	5	--	
Danbury.....	4	3	46	47	112 28	40 22	--	--	--	--	--	--	--	--	--	--	--	--	--	33	--	47	1	9	--	
Bethel.....	2	2	11	11	70 00	31 19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12	--	--	--	
Brookfield.....	1	3	6	5	35 50	30 90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	3	1	--	
Darien.....	3	3	3	3	58 16	41 66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	--	--	--	
Easton.....	3	3	5	8	27 33	21 89	--	3	5	3	--	--	--	--	--	--	--	--	--	--	--	4	1	1	--	
Fairfield.....	7	8	11	10	55 16	34 20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	--	--	1	
Greenwich.....	4	27	27	18	69 37	36 94	--	1	--	--	--	--	--	--	--	--	--	--	--	5	2	28	3	4	1	
Huntington.....	1	1	18	7	120 00	28 61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	3	2	--	
Monroe.....	--	--	7	7	-----	27 39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	3	--	--	
New Canaan.....	2	2	12	12	62 50	28 87	--	1	2	5	--	--	--	--	--	--	--	--	--	--	--	11	2	1	1	
New Fairfield.....	--	--	7	7	-----	26 57	--	1	--	6	--	--	--	--	--	--	--	--	--	--	--	5	1	--	--	
Newtown.....	7	7	17	17	34 74	27 13	--	1	6	2	7	2	2	3	1	2	3	1	1	1	1	24	3	14	--	
Norwalk.....	7	7	40	40	97 85	46 50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7	1	1	--	
Redding.....	5	4	3	4	27 94	23 00	--	1	3	2	--	--	--	--	--	--	--	--	--	--	--	7	1	--	--	
Ridgefield.....	2	3	12	11	31 20	30 90	--	1	3	2	4	1	2	1	2	1	2	1	2	--	--	12	1	5	--	
Sherman.....	3	--	3	6	29 50	22 95	--	2	2	2	2	2	2	2	2	2	2	2	2	--	--	3	--	--	1	
Stamford.....	7	38	38	38	90 35	42 27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	43	2	12	--	
Stratford.....	3	3	19	19	105 00	36 21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20	2	9	--	
Trumbull.....	2	2	4	5	39 06	31 00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	1	--	--	
Westport.....	4	--	2	8	22 50	19 71	--	5	2	1	3	1	2	1	2	1	2	1	2	--	--	6	1	--	--	
Westport.....	4	4	9	5	45 00	42 23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11	4	--	--	
Wilton.....	1	1	8	8	32 00	25 74	--	--	4	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	
23 Towns.	77	67	428	435	\$68 73	\$39 12	2	16	3	27	13	64	18	108	12	217	445	48	64	4						

WINDHAM COUNTY.

TOWNS.	Male.		Female.	Average wages per month.		No. of teachers whose av. wages was \$20 or less per month.		No. of teachers whose av. wages was from \$20 to \$25 per mo.		No. of teachers whose av. wages was from \$25 to \$30 per mo.		No. of teachers whose av. wages was from \$30 to \$40 per mo.		No. of teachers whose av. wages was from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.
	Winter.	Summer.		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.				
Brooklyn	2	2	11	\$36 77	\$34 62	1	8	3	1	4	2	1	2	6	10	3	1	1	---
Ashford	8	3	2	20 95	18 31	5	4	3	3	---	---	---	---	---	---	---	---	---	---
Canterbury	1	---	10	30 00	22 22	---	---	---	7	1	---	---	---	---	---	---	---	---	---
Chaplin	1	---	3	38 75	25 73	---	---	---	2	---	---	---	---	---	---	---	---	---	---
Eastford	1	---	6	24 26	21 41	---	2	1	4	1	---	---	---	---	---	---	---	---	---
Hampton	2	---	5	26 00	20 40	---	4	1	3	1	---	---	---	---	---	---	---	---	---
Killingly	7	6	25	64 66	35 17	---	1	---	2	1	4	---	---	---	---	---	---	---	---
Plainfield	9	3	14	57 17	29 32	---	---	---	3	2	7	---	---	---	---	---	---	---	---
Pontret	2	2	6	31 00	25 08	---	1	---	2	2	---	---	---	---	---	---	---	---	---
Punam	4	4	11	78 44	66 66	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Scotland	1	1	4	27 93	25 47	---	---	---	1	1	---	---	---	---	---	---	---	---	---
Sterling	6	1	3	27 29	19 80	---	5	2	2	3	1	---	---	---	---	---	---	---	---
Thompson	8	6	11	42 24	35 01	---	1	---	---	---	---	---	---	---	---	---	---	---	---
Windham	6	4	26	28 86	38 86	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Woodstock	8	4	8	31 03	26 48	---	---	---	5	2	5	6	2	---	---	---	---	---	---
15 Towns.	63	36	145	\$48 53	\$31 07	6	26	7	32	14	28	17	53	10	34	144	26	13	2

LITCHFIELD COUNTY.

TOWNS.	Male.		Female.		Average Wages per month.		No. of teachers whose av. wages was \$20 or less per month.		No. of teachers whose av. wages was from \$20 to \$25 per mo.		No. of teachers whose av. wages was from \$25 to \$30 per mo.		No. of teachers whose av. wages was from \$30 to \$40 per mo.		No. of teachers whose av. wages was from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.	
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.					
Litchfield	5	2	15	17	\$30 00	\$28 00	--	7	--	5	17	--	--	--	--	--	--	14	5	2	--
Barkhamsted	--	--	12	11	----	20 13	--	--	--	5	--	--	--	--	--	--	--	--	--	--	--
Bethlehem	1	--	5	7	32 00	22 17	--	1	--	3	--	--	--	--	--	--	--	--	--	--	--
Bridgewater	2	--	4	6	36 50	25 58	--	--	--	9	3	--	--	--	--	--	--	--	--	--	--
Canaan	2	--	7	9	22 00	20 75	1	7	1	2	3	--	--	--	--	--	--	9	1	2	--
Colebrook	3	1	8	10	29 75	23 28	--	2	1	6	2	--	--	--	--	--	--	6	3	2	--
Cornwall	2	--	11	13	27 68	24 42	--	4	--	5	2	--	--	--	--	--	--	9	1	2	--
Goshen	3	--	9	11	34 50	21 70	--	4	1	6	2	--	--	--	--	--	--	7	1	2	--
Harwinton	3	--	8	10	27 33	25 66	--	--	--	10	2	--	--	--	--	--	--	5	5	1	1
Kent	5	3	8	10	26 62	21 55	1	5	1	3	4	--	--	--	--	--	--	8	4	1	1
Morris	1	--	4	4	35 00	23 17	--	1	--	3	2	--	--	--	--	--	--	2	1	2	--
New Hartford	4	2	12	14	60 96	26 34	--	--	--	6	6	1	1	--	--	--	--	15	2	2	1
New Milford	11	1	10	20	41 09	28 66	--	1	1	7	5	8	7	--	--	--	--	9	11	5	--
Norfolk	3	3	9	9	39 55	25 58	--	--	2	6	3	1	1	--	--	--	--	0	3	2	--
North Canaan	2	--	7	6	56 44	27 23	--	--	--	1	6	1	--	--	--	--	--	14	1	2	1
Plymouth	1	1	14	13	100 00	35 18	--	--	--	1	1	--	--	--	--	--	--	4	2	3	2
Roxbury	2	--	6	6	27 94	24 30	--	1	--	3	3	--	--	--	--	--	--	14	1	2	1
Salisbury	--	--	18	18	----	31 17	--	--	--	--	1	--	--	--	--	--	--	13	3	2	1
Sharon	6	2	12	16	31 19	23 62	--	5	3	7	3	--	--	--	--	--	--	13	3	2	1
Thomaston	1	1	13	13	122 22	35 11	--	--	--	--	3	1	--	--	--	--	--	13	3	2	--
Torrington	2	2	18	20	91 23	34 46	--	2	--	1	6	--	--	--	--	--	--	12	3	2	--
Warren	3	--	5	5	32 66	23 50	--	--	2	5	1	--	--	--	--	--	--	19	3	1	4
Washington	4	1	8	11	34 80	24 77	--	4	1	4	2	--	--	--	--	--	--	4	--	2	--
Watertown	2	1	10	10	68 00	31 17	--	--	1	4	7	--	--	--	--	--	--	8	2	3	2
Winchester	3	3	17	18	87 25	43 08	--	--	1	1	2	--	--	--	--	--	--	19	--	2	--
Woodbury	3	1	12	14	29 33	25 15	--	3	--	4	6	1	1	--	--	--	--	12	3	--	--
26 Towns.	74	26	258	302	\$44 87	\$28 07	2	47	14	85	26	90	16	65	5	19	236	64	42	3	--

MIDDLESEX COUNTY.

TOWNS.	Male.		Female.		Average Wages per month.		No. of teachers whose av. wages was \$200 or less per month.		No. of teachers whose av. wages was from \$20 to \$25 per mo.		No. of teachers whose av. wages was from \$25 to \$30 per mo.		No. of teachers whose av. wages was from \$30 to \$40 per mo.		No. of teachers whose av. wages was from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
Middletown	2	2	25	25	\$46 00	\$29 31	--	1	--	5	2	15	--	19	--	26	1	9	6	
" City	4	5	19	19	110 00	44 87	--	--	--	--	--	--	--	--	--	23	1	1	--	
" complete	6	7	44	44	90 30	36 03	--	1	--	5	2	15	--	19	--	49	2	9	--	
Haddam	2	1	13	14	26 00	26 26	--	--	--	8	1	15	--	--	--	12	1	2	--	
Chatham	2	2	12	12	47 50	25 08	--	1	--	1	1	2	--	--	--	11	4	2	1	
Chester	1	--	4	5	36 00	34 29	--	--	--	--	1	5	--	--	--	4	2	--	--	
Clinton	--	--	--	3	--	30 00	--	--	--	--	--	--	--	--	--	3	2	--	--	
Cromwell	--	--	3	3	--	36 53	--	--	--	--	--	5	--	--	--	7	1	2	--	
Durham	1	--	5	6	28 00	25 26	--	--	--	--	--	--	--	--	--	5	2	3	--	
East Haddam	4	1	15	18	29 40	23 20	--	1	--	4	1	2	--	--	--	10	2	3	--	
Essex	2	1	6	7	56 50	36 00	--	--	--	7	1	7	--	--	--	5	2	1	--	
Killingworth	2	1	6	7	25 00	21 80	--	4	2	3	--	--	--	--	--	3	--	1	--	
Middlefield	1	--	4	5	36 00	31 33	--	--	--	--	1	5	--	--	--	5	2	1	--	
Old Saybrook	1	1	3	3	40 00	32 00	--	--	--	--	1	3	--	--	--	3	--	1	--	
Portland	2	2	17	17	105 00	39 53	--	--	--	--	1	12	--	3	--	19	--	3	--	
Saybrook	1	1	5	5	70 00	35 20	--	--	--	--	--	5	--	--	--	6	--	3	--	
Westbrook	1	1	5	5	22 00	23 20	--	1	1	3	--	--	--	--	--	3	3	--	--	
15 Towns.	26	18	150	157	\$59 48	\$31 20	--	8	3	36	7	62	--	22	--	152	21	29	1	

TOLLAND COUNTY.

TOWNS.	Male.		Female.		Average Wages per month.		No. of teachers whose av. wages was \$20 or less per month.		No. of teachers whose av. wages was from \$20 to \$25 per mo.		No. of teachers whose av. wages was from \$25 to \$30 per mo.		No. of teachers whose av. wages was from \$30 to \$40 per mo.		No. of teachers whose av. wages was from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. of Teachers' Meetings.
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.				
Tolland.....	1	1	9	9	\$22 00	\$23 44	1	7	1	1	1	1	1	1	1	1	7	9	--	--
Andover.....	3	1	1	2	27 50	18 18	2	2	1	1	1	1	1	1	1	1	4	--	--	--
Bolton.....	3	1	1	3	30 00	24 50	1	4	2	1	1	1	1	1	1	1	4	--	--	--
Columbia.....	2	1	6	7	23 88	20 09	3	2	2	1	1	1	1	1	1	1	5	2	--	--
Coventry.....	7	3	5	9	34 90	25 83	1	3	4	4	5	1	2	3	1	1	8	1	2	--
Ellington.....	3	1	6	8	31 00	27 00	1	1	1	1	4	2	2	1	1	1	10	4	2	--
Hebron.....	2	1	4	8	29 30	22 51	1	8	3	1	4	2	2	1	1	1	10	2	2	--
Mansfield.....	7	1	7	13	28 50	23 59	4	5	6	4	6	4	4	1	1	1	10	1	2	--
Somers.....	2	1	9	11	34 00	20 14	1	1	1	1	7	2	4	1	1	1	10	1	2	--
Stafford.....	5	4	21	21	45 58	28 98	1	5	4	3	7	3	12	4	1	1	12	5	1	--
Union.....	3	1	3	5	24 50	22 17	2	3	1	1	2	1	1	28	1	1	28	4	--	--
Vernon.....	2	2	30	30	104 16	37 07	1	1	1	1	2	1	1	1	1	1	28	4	--	--
Willington.....	1	--	6	8	24 00	21 58	4	4	--	--	--	--	--	--	--	--	4	1	--	--
13 Towns.	45	16	107	134	\$36 71	\$28 32	18	44	22	26	9	48	1	48	1	1	101	30	8	--

SUMMARY BY COUNTIES.

COUNTIES.	Male.		Female.		Average Wages per month.		No. of teachers whose av. wages was \$20 or less per month.		No. of teachers whose av. wages was from \$20 to \$25 per mo.		No. of teachers whose av. wages was from \$25 to \$30 per mo.		No. of teachers whose av. wages was from \$30 to \$40 per mo.		No. of teachers whose av. wages was from \$40 to \$50 per mo.		Continuously employed.	Beginners.	Attended Normal School.	No. Teach. Meetings.
	Winter.	Summer.	Winter.	Summer.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.				
Hartford.....	80	68	498	505	\$93 88	\$42 86	--	4	3	37	6	52	17	192	1	111	550	79	158	7
New Haven.....	67	66	692	695	114 69	46 05	--	5	3	30	3	51	10	170	1	257	728	65	63	2
New London.....	101	46	281	329	48 23	34 96	2	34	26	67	24	53	22	76	8	97	304	45	34	3
Fairfield.....	77	67	428	435	68 73	39 12	2	16	3	27	13	64	18	108	12	217	445	48	64	4
Windham.....	63	36	145	173	48 53	31 07	6	26	7	32	14	28	17	53	10	34	144	26	13	2
Litchfield.....	74	26	258	302	44 87	28 07	2	47	14	85	26	90	16	65	5	19	230	64	42	3
Middlesex.....	26	18	150	157	59 48	31 20	--	8	3	36	6	28	7	62	--	22	152	21	29	1
Tolland.....	45	16	107	134	36 71	28 32	--	18	12	44	22	26	9	48	1	--	101	30	8	--
The State.	533	343	2,559	2,730	\$68 82	\$38 56	12	158	71	358	114	392	116	774	38	757	2654	378	411	22

SCHOOLS, SCHOOL HOUSES
AND LIBRARIES.

HARTFORD COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sittings.	Graded Schools.					Schools averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Hartford.....	10	17	135	6,920	3	1	1	--	10	--	1	191.23	2
Avon.....	7	7	7	251	--	--	--	--	--	--	--	162.71	--
Berlin.....	9	11	11	526	2	--	--	--	--	--	--	175.63	--
Bloomfield.....	9	9	9	323	--	--	--	--	--	--	--	152.77	--
Bristol.....	12	13	27	1,352	2	--	2	--	1	1	1	187.77	1
Burlington.....	9	9	9	345	--	--	--	--	--	--	--	157.77	--
Canton.....	8	8	12	685	--	--	--	1	--	--	--	180.58	--
East Granby.....	6	6	7	196	--	--	--	--	--	1	--	153.57	--
East Hartford.....	10	11	20	805	4	1	1	--	--	--	1	180.00	--
East Windsor.....	11	11	17	672	--	1	--	1	--	--	--	179.70	--
Enfield.....	13	13	28	1,336	2	--	1	--	1	2	--	175.89	--
Farmington.....	7	9	17	735	--	1	--	--	1	1	--	185.58	--
Glastonbury.....	18	18	20	1,153	2	--	--	--	--	3	--	180.00	--
Granby.....	10	10	11	356	1	--	--	--	--	1	--	155.00	--
Hartland.....	9	9	9	212	--	--	--	--	--	5	--	120.77	--
Manchester.....	9	9	25	1,217	3	--	--	--	2	--	--	190.00	--
Marlborough.....	4	3	3	120	--	--	--	--	--	1	--	151.66	--
New Britain.....	1	16	38	2,235	2	1	3	1	1	--	1	190.00	4
Newington.....	4	4	5	196	1	--	--	--	--	--	--	172.40	--
Plainville.....	1	1	7	402	--	--	--	--	1	--	--	190.00	--
Rocky Hill.....	4	4	4	166	--	--	--	--	--	--	--	175.00	--
Simsbury.....	12	12	14	501	--	1	--	--	--	--	--	180.00	--
Southington.....	11	12	27	1,225	1	1	--	--	2	--	1	180.00	--
South Windsor.....	10	10	12	476	2	--	--	--	--	--	--	176.66	--
Suffield.....	11	11	16	646	5	--	--	--	--	--	--	180.00	--
West Hartford.....	1	9	12	391	3	--	--	--	--	--	1	180.00	--
Wethersfield.....	6	7	8	356	1	--	--	--	--	--	1	191.75	--
Windsor.....	10	11	15	706	2	1	--	--	--	--	1	180.46	--
Windsor Locks.....	1	1	8	540	--	--	--	--	1	--	--	195.00	--
29 Towns.	233	271	533	25,044	36	8	8	3	20	15	8	181.48	7

HARTFORD COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
Hartford.....	17	--	--	-----	\$1,107,500 00	8	4,000	6	\$400 00	1
Avon.....	7	--	--	-----	6,000 00	--	----	7	35 00	1
Berlin.....	10	2	1	\$1,469 00	12,800 00	4	805	--	----	2
Bloomfield.....	9	--	--	-----	7,000 00	2	----	1	10 00	--
Bristol.....	12	--	--	-----	44,300 00	12	1,000	13	105 00	1
Burlington.....	9	--	--	-----	3,150 00	--	----	--	----	--
Canton.....	8	3	--	-----	11,500 00	1	200	1	20 00	--
East Granby.....	6	1	--	-----	2,300 00	--	----	6	30 00	--
East Hartford...	13	--	--	-----	22,900 00	6	255	4	25 00	1
East Windsor.....	11	--	--	-----	23,900 00	2	56	3	30 00	1
Enfield.....	16	--	1	600 00	50,100 00	4	851	13	120 00	--
Farmington.....	7	--	--	-----	32,850 00	2	435	2	25 00	1
Glastonbury.....	18	4	--	-----	14,800 00	12	----	9	45 00	--
Granby.....	10	--	--	-----	6,400 00	--	----	--	----	--
Hartland.....	9	7	--	-----	1,125 00	--	----	--	----	--
Manchester.....	9	--	1	13,000 00	48,800 00	9	463	9	95 00	1
Marlborough...	3	--	--	-----	1,200 00	--	----	--	----	--
New Britain.....	10	--	--	-----	165,000 00	5	600	1	110 00	1
Newington.....	5	--	1	1,200 00	3,850 00	4	178	4	20 00	1
Plainville.....	1	--	--	-----	18,000 00	1	25	--	----	1
Rocky Hill.....	4	--	--	-----	2,400 00	--	----	--	----	--
Simsbury.....	12	--	--	-----	13,000 00	2	205	1	5 00	1
Southington.....	12	--	--	-----	65,800 00	1	400	2	15 00	--
South Windsor...	10	2	--	-----	8,500 00	5	230	7	35 00	--
Suffield.....	11	--	--	-----	14,650 00	7	650	2	15 00	1
West Hartford...	8	--	--	-----	15,000 00	9	500	1	45 00	1
Wethersfield.....	7	--	--	-----	11,500 00	1	200	1	5 00	1
Windsor.....	11	1	--	-----	26,750 00	3	383	2	10 00	--
Windsor Locks...	2	--	--	-----	40,000 00	1	600	--	----	--
29 Towns.	267	20	4	\$16,269 00	\$1,781,075 00	101	12,036	95	\$1,200 00	16

NEW HAVEN COUNTY.

TOWNS.	Districts. <small>1 or 2</small>	Number of Schools.	Departments.	Number of Sittings.	Graded Schools.					Schools Averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
New Haven City	1	37	244	11,984	2	6	7	--	16	--	1	200.00	7
" Westville.....	1	1	6	330	--	--	--	--	1	--	--	200.00	--
" South.....	1	1	1	45	--	--	--	--	--	--	--	190.00	--
" complete	3	39	251	12,359	2	6	7	--	17	--	1	199.96	7
Beacon Falls.....	3	3	4	106	1	--	--	--	--	1	--	156.00	--
Bethany	5	5	5	128	--	--	--	--	--	1	--	151.60	--
Branford.....	1	9	15	764	2	--	--	--	1	1	1	190.00	--
Cheshire.....	12	12	14	482	2	--	--	--	--	1	--	180.00	--
Derby	7	9	46	2,622	--	--	1	1	5	--	--	198.94	--
East Haven.....	2	3	3	122	1	--	--	--	--	--	--	190.00	--
Guilford	10	14	16	669	2	--	--	--	--	3	--	172.37	--
Hamden	13	13	16	610	3	--	--	--	--	--	--	190.00	--
Madison	12	12	12	442	--	--	--	--	--	3	--	152.41	--
Meriden	12	17	73	3,856	1	1	1	2	6	--	1	200.00	4
Middlebury	6	4	4	125	--	--	--	--	--	1	--	173.25	--
Milford	1	5	10	460	--	--	--	--	1	--	--	180.00	--
Naugatuck	6	6	18	885	1	--	--	1	1	--	--	198.33	--
North Branford.....	7	6	6	195	--	--	--	--	--	1	--	162.33	--
North Haven	8	8	9	340	1	--	--	--	--	1	--	179.33	--
Orange	8	10	19	838	1	--	--	--	1	1	1	185.90	--
Oxford	13	11	11	376	--	--	--	--	--	--	--	140.00	--
Prospect.....	1	3	3	74	--	--	--	--	--	--	--	170.00	--
Seymour.....	1	5	11	586	--	--	--	--	1	--	1	192.18	--
Southbury	10	8	8	293	--	--	--	--	--	1	--	166.00	--
Wallingford	9	9	25	1,170	1	1	--	--	1	1	--	182.40	--
Waterbury	10	9	12	548	1	1	--	--	--	--	--	172.41	--
" Centre	1	15	69	3,670	6	--	5	--	4	--	1	200.00	5
" complete	11	24	81	4,218	7	1	5	--	4	--	1	195.91	5
Wolcott	1	6	6	174	--	--	--	--	--	1	--	141.66	--
Woodbridge.....	6	6	6	211	--	--	--	--	--	--	--	165.33	--
25 Towns.	168	247	672	32,105	25	9	14	4	38	17	6	191.72	16

NEW HAVEN COUNTY.

TOWNS.	School Houses.					Libraries.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having.	No. of Books.	No. drawing State money.	Total Amount Drawn.	No. Public.
New Haven	37	3	--	-----	\$753,600 00	11	10,000	1	\$680 00	1
" Westville	1	--	--	-----	20,000 00	1	600	1	20 00	--
" South.....	1	--	--	-----	4,000 00	--	----	--	----	--
" complete	39	3	--	-----	777,600 00	12	10,600	2	700 00	1
Beacon Falls	3	--	--	-----	2,700 00	--	----	--	----	--
Bethany	5	--	--	-----	3,600 00	3	150	--	----	--
Branford	9	--	--	-----	20,500 00	1	530	1	45 00	--
Cheshire.....	12	1	1	\$900 00	7,400 00	2	100	3	15 00	--
Derby	9	--	--	-----	127,500 00	6	1,463	5	190 00	--
East Haven.....	3	--	--	-----	2,400 00	2	79	1	10 00	--
Guilford	13	--	--	-----	12,850 00	1	300	--	----	--
Hamden	13	1	--	-----	12,100 00	6	450	5	25 00	--
Madison	12	3	--	-----	5,800 00	--	----	--	----	1
Meriden	18	--	1	18,000 00	310,175 00	9	1,500	7	165 00	1
Middlebury	6	3	--	-----	1,600 00	2	8	1	5 00	1
Milford	5	--	--	-----	20,000 00	--	----	1	60 00	1
Naugatuck	9	3	--	-----	18,125 00	2	637	2	45 00	--
North Branford..	6	1	--	-----	4,000 00	--	----	--	----	--
North Haven.....	8	--	--	-----	4,650 00	8	1,016	1	10 00	1
Orange	12	--	--	-----	13,850 00	--	----	2	30 00	--
Oxford	13	5	--	-----	2,150 00	--	----	1	5 00	1
Prospect.....	3	1	--	-----	650 00	--	----	--	----	1
Seymour.....	7	--	--	-----	52,000 00	1	220	1	40 00	1
Southbury	9	2	--	-----	2,850 00	--	----	--	----	--
Wallingford	13	1	--	-----	53,300 00	--	----	2	55 00	1
Waterbury	10	--	--	-----	14,475 00	5	386	3	20 00	--
" Centre..	15	--	--	-----	350,000 00	--	----	1	230 00	1
" complete	25	--	--	-----	364,475 00	5	386	4	250 00	1
Wolcott	6	2	--	-----	2,150 00	--	----	1	40 00	--
Woodbridge	6	--	--	-----	4,000 00	6	596	6	30 00	--
25 Towns.	264	26	2	\$18,900 00	\$1,826,425 00	66	18,035	46	\$1,720 00	11

NEW LONDON COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sittings.	Graded Schools.					Schools averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
New London	1	7	42	1,810	--	1	2	--	4	--	1	198.00	--
Norwich Town	1	3	5	250	--	1	--	--	--	--	--	200.00	--
" Central	1	6	26	1,215	1	1	3	--	1	--	--	200.00	--
" West Chelsea ..	1	4	15	905	--	--	2	1	--	--	--	200.00	--
" other Districts.	9	9	34	1,858	3	--	1	1	2	1	--	192.05	--
" complete	12	22	80	4,228	4	2	6	2	3	1	--	196.62	--
Bozrah	7	7	7	283	--	--	--	--	--	1	--	150.71	--
Colchester	12	13	17	672	--	--	--	--	1	4	--	175.00	--
East Lyme	9	9	11	490	--	1	--	--	--	1	--	150.18	--
Franklin	7	7	7	198	--	--	--	--	--	3	--	120.71	--
Griswold	13	12	17	732	--	--	--	--	1	4	--	151.71	--
Groton	11	11	22	1,192	2	1	1	1	--	--	--	187.54	--
Lebanon	16	16	16	588	--	--	--	--	--	3	--	146.37	--
Ledyard	14	13	13	478	--	--	--	--	--	2	--	134.91	--
Lisbon	6	6	6	184	--	--	--	--	--	3	--	130.83	--
Lyme	7	7	7	250	--	--	--	--	--	1	--	152.99	--
Montville	12	13	15	600	2	--	--	--	--	2	--	148.00	--
North Stonington	15	15	15	455	--	--	--	--	--	1	--	137.00	--
Old Lyme	8	8	8	370	--	--	--	--	--	3	--	143.75	--
Preston	12	12	17	725	2	--	1	--	--	--	--	156.00	--
Salem	7	7	7	200	--	--	--	--	--	4	--	130.00	--
Sprague	5	5	9	392	2	1	--	--	--	--	--	180.00	--
Stonington	16	15	31	1,582	--	2	2	2	--	3	--	173.00	--
Voluntown	8	8	9	326	1	--	--	--	--	4	--	138.88	--
Waterford	11	11	13	624	2	--	--	--	--	--	--	159.00	--
21 Towns.	209	224	369	16,379	15	8	12	5	9	40	1	169.39	--

NEW LONDON COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
New London	7	--	--	-----	\$61,000 00	7	2,200	1	\$110 00	--
Norwich Town..	3	1	--	-----	2,500 00	1	----	--	----	--
“ Central.....	6	--	--	-----	90,000 00	1	312	1	55 00	1
“ W. Chelsea	4	--	--	-----	60,000 00	--	----	1	40 00	--
“ other Dist's	11	--	--	-----	86,400 00	--	----	2	40 00	--
“ complete ..	24	1	--	-----	238,900 00	2	312	4	135 00	1
Bozrah	7	--	--	-----	5,300 00	--	----	--	----	--
Colchester	11	4	--	-----	4,400 00	5	498	3	30 00	1
East Lyme	9	1	--	-----	7,800 00	2	57	--	----	--
Franklin	7	--	--	-----	3,600 00	7	40	--	----	1
Griswold	13	4	1	\$2,046 57	13,700 00	--	----	6	90 00	2
Groton	14	1	--	-----	20,300 00	5	30	3	30 00	--
Lebanon	16	2	1	811 32	7,600 00	1	23	1	5 00	--
Ledyard	14	--	--	-----	5,825 00	--	----	--	----	1
Lisbon	6	2	--	-----	1,100 00	--	----	--	----	--
Lyme	7	--	--	-----	2,750 00	--	----	--	----	--
Montville	12	--	--	-----	9,500 00	2	183	1	10 00	1
North Stonington	15	3	--	-----	7,150 00	--	----	--	----	--
Old Lyme	8	2	--	-----	1,850 00	--	----	--	----	1
Preston	12	1	--	-----	10,250 00	1	16	--	----	--
Salem	7	--	1	2,000 00	3,950 00	--	----	--	----	--
Sprague	5	--	--	-----	8,900 00	3	500	1	10 00	--
Stonington	17	--	--	-----	28,300 00	1	300	1	30 00	--
Voluntown	8	--	--	-----	6,925 00	1	25	--	----	--
Waterford	11	--	--	-----	12,100 00	--	----	1	5 00	--
21 Towns.	230	21	3	\$4,857 89	\$461,200 00	37	4,184	22	\$455 00	8

FAIRFIELD COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sittings.	Graded Schools.					Schools Averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Bridgeport	1	18	106	6,292	2	5	--	--	10	--	1	201.00	1
Danbury	13	17	50	2,259	1	--	1	--	5	1	1	197.80	--
Bethel	6	6	13	654	2	--	1	--	--	1	--	196.92	--
Brookfield	8	7	7	252	--	--	--	--	--	--	--	176.14	--
Darien	4	4	6	260	2	--	--	--	--	--	--	194.66	--
Easton	8	8	8	240	--	--	--	--	--	1	--	180.00	--
Fairfield	14	14	18	609	4	--	--	--	--	2	--	200.00	--
Greenwich	20	20	30	1,812	6	--	--	1	--	1	--	196.33	--
Huntington	12	12	20	688	--	--	--	--	1	4	--	189.00	--
Monroe	7	7	7	314	--	--	--	--	--	--	--	180.71	--
New Canaan	11	11	12	510	1	--	--	--	--	2	--	194.82	--
New Fairfield	7	7	7	208	--	--	--	--	--	3	--	161.57	--
Newtown	21	21	24	1,036	1	1	--	--	--	3	--	194.37	--
Norwalk	11	12	43	2,500	3	--	--	1	4	--	--	197.41	--
Redding	10	8	8	249	--	--	--	--	--	1	--	176.00	--
Ridgefield	13	13	14	522	1	--	--	--	--	1	--	189.50	--
Sherman	6	6	6	162	--	--	--	--	--	1	--	153.33	--
Stamford	1	19	41	1,750	2	--	1	--	3	1	1	192.74	--
Stratford	5	5	22	992	--	--	1	--	2	1	--	200.00	--
Trumbull	6	6	6	230	--	--	--	--	--	1	--	197.50	--
Weston	6	6	6	225	--	--	--	--	--	2	--	166.00	--
Westport	10	10	13	678	3	--	--	--	--	--	--	198.46	--
Wilton	9	9	9	450	--	--	--	--	--	1	--	194.00	--
23 Towns.	209	246	476	22,892	28	6	4	2	25	27	3	194.42	1

FAIRFIELD COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
Bridgeport.....	18	--	--	-----	\$325,000 00	--	----	1	\$345 00	1
Danbury.....	17	3	--	-----	129,000 00	2	500	--	----	1
Bethel.....	6	--	--	-----	14,500 00	--	----	--	----	--
Brookfield.....	7	1	--	-----	4,600 00	--	----	1	10 00	--
Darien.....	4	--	--	-----	6,000 00	1	75	4	20 00	--
Easton.....	8	1	--	-----	2,700 00	3	24	1	10 00	--
Fairfield.....	14	1	2	\$3,475 00	24,400 00	2	184	4	20 00	1
Greenwich.....	20	1	--	-----	41,775 00	2	200	3	25 00	1
Huntington.....	12	4	--	-----	33,750 00	--	----	--	----	--
Monroe.....	7	3	--	-----	2,800 00	--	----	--	----	--
New Canaan.....	11	--	--	-----	6,000 00	--	----	3	20 00	1
New Fairfield....	7	--	--	-----	1,875 00	--	----	--	----	--
Newtown.....	21	--	--	-----	11,475 00	3	61	1	5 00	1
Norwalk.....	12	2	1	11,570 00	92,800 00	3	2,737	3	40 00	--
Redding.....	9	1	--	-----	3,300 00	1	40	1	5 00	--
Ridgefield.....	13	2	--	-----	8,700 00	--	----	1	5 00	1
Sherman.....	6	1	--	-----	1,800 00	--	----	--	----	--
Stamford.....	18	--	--	-----	87,900 00	--	----	1	100 00	1
Stratford.....	5	--	--	-----	51,800 00	2	150	2	55 00	1
Trumbull.....	6	1	--	-----	3,150 00	4	100	1	5 00	--
Weston.....	6	1	--	-----	1,650 00	--	----	--	----	--
Westport.....	10	--	--	-----	7,600 00	1	100	2	10 00	2
Wilton.....	9	--	--	-----	5,500 00	1	46	1	5 00	--
23 Towns.	246	22	3	\$15,045 00	\$868,075 00	25	4,217	30	\$680 00	11

WINDHAM COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sitzings.	Graded Schools.					Schools averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Brooklyn	9	8	14	552	--	1	--	1	--	3	--	159.64	--
Ashford	10	10	10	302	--	--	--	--	--	3	--	129.00	--
Canterbury	11	11	11	486	--	--	--	--	--	2	--	127.00	--
Chaplin	4	4	4	150	--	--	--	--	--	--	--	150.25	--
Eastford	8	8	8	256	--	--	--	--	--	3	--	129.57	--
Hampton	7	7	7	253	--	--	--	--	--	1	--	143.57	--
Killingly	15	15	30	1,452	5	1	--	--	1	3	--	185.33	--
Plainfield	11	11	20	959	1	--	1	--	1	1	--	171.00	--
Pomfret	8	8	8	370	--	--	--	--	--	1	--	145.00	--
Putnam	6	7	15	700	1	1	--	--	1	1	1	175.25	1
Scotland	5	5	5	174	--	--	--	--	--	1	--	132.00	--
Sterling	9	9	9	268	--	--	--	--	--	4	--	135.00	--
Thompson	13	13	19	910	4	1	--	--	--	--	--	160.78	--
Windham	11	11	28	1,236	2	--	--	--	2	2	--	184.28	--
Woodstock	16	16	16	690	--	--	--	--	--	2	--	150.00	--
15 Towns.	143	143	204	8,758	13	4	1	1	5	27	1	161.12	1

WINDHAM COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
Brooklyn	9	--	--	-----	\$22,700 00	2	115	2	\$25 00	--
Ashford	10	--	--	-----	4,500 00	--	----	--	----	1
Canterbury	11	--	--	-----	4,350 00	3	31	1	5 00	--
Chaplin	4	--	--	-----	3,600 00	--	----	1	10 00	--
Eastford	8	--	--	-----	2,300 00	--	----	--	----	--
Hampton	7	2	--	-----	3,450 00	--	----	--	----	1
Killingly	15	4	--	-----	54,300 00	1	400	2	25 00	1
Plainfield	11	--	--	-----	26,400 00	--	----	--	----	1
Pomfret	8	1	--	-----	5,900 00	--	----	--	----	--
Putnam	7	--	--	-----	34,250 00	2	----	--	----	1
Scotland	5	5	--	-----	1,600 00	1	14	--	----	--
Sterling	8	--	--	-----	2,200 00	--	----	--	----	--
Thompson	13	2	--	-----	12,550 00	13	100	13	75 00	1
Windham	13	--	--	-----	54,800 00	4	1,175	5	60 00	1
Woodstock	16	--	--	-----	11,350 00	--	----	--	----	--
15 Towns.	145	14	--	-----	\$244,250 00	26	1,835	24	\$200 00	7

LITCHFIELD COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sitings.	Graded Schools.					Schools averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Litchfield	1	19	23	622	1	1	--	--	--	2	--	190.00	--
Barkhamsted	11	11	12	325	1	--	--	--	--	3	--	127.08	--
Bethlehem	7	7	7	143	--	--	--	--	--	5	--	138.28	--
Bridgewater	5	5	6	180	1	--	--	--	--	--	--	166.00	--
Canaan	9	9	9	249	--	--	--	--	--	4	--	166.11	--
Colebrook	10	10	11	350	1	--	--	--	--	1	--	153.27	--
Cornwall	14	14	14	399	--	--	--	--	--	2	--	155.64	--
Goshen	11	11	11	276	--	--	--	--	--	8	--	152.72	--
Harwinton.....	12	11	11	338	--	--	--	--	--	3	--	133.09	--
Kent	13	13	13	425	--	--	--	--	--	3	--	171.92	--
Morris	6	5	5	134	--	--	--	--	--	1	--	136.00	--
New Hartford.....	9	9	14	544	2	--	1	--	--	3	--	176.35	--
New Milford	18	18	21	758	--	--	1	--	--	1	--	185.85	--
Norfolk.....	10	10	12	344	--	1	--	--	--	1	--	143.00	--
North Canaan	5	5	8	327	1	1	--	--	--	--	--	181.25	--
Plymouth.....	8	8	15	580	--	--	1	1	--	1	--	173.00	--
Roxbury.....	7	7	7	220	--	--	--	--	--	--	--	153.85	--
Salisbury	13	13	18	853	4	1	--	--	--	4	--	193.66	--
Sharon.....	17	17	18	504	1	--	--	--	--	7	--	173.05	--
Thomaston	1	4	12	621	1	--	--	--	1	--	--	180.00	--
Torrington.....	1	10	18	920	1	--	--	--	1	2	--	200.00	--
Warren	7	5	5	147	--	--	--	--	--	1	--	148.00	--
Washington	12	12	12	360	--	--	--	--	--	2	--	158.58	--
Watertown	9	9	12	404	--	--	1	--	--	2	--	165.91	--
Winchester	8	8	18	878	--	--	1	--	1	2	--	173.77	1
Woodbury	14	14	15	424	1	--	--	--	--	5	--	167.00	--
26 Towns.	238	264	327	11,325	15	4	5	1	3	63	--	168.55	1

LITCHFIELD COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn	No. Public.
Litchfield	19	3	--	-----	\$19,435 01	1	900	1	\$100 00	1
Barkhamsted	11	--	--	-----	4,400 00	--	--	--	-----	--
Bethlehem	7	3	--	-----	2,750 00	--	-----	1	10 00	--
Bridgewater	5	1	--	-----	2,100 00	1	70	--	-----	--
Canaan	9	1	1	\$460.00	2,600 00	--	-----	--	-----	--
Colebrook	10	--	--	-----	8,900 00	--	-----	--	-----	--
Cornwall	14	3	--	-----	9,600 00	--	-----	4	25 00	1
Goshen	11	3	--	-----	2,300 00	--	-----	--	-----	--
Harwinton	11	2	--	-----	4,425 00	--	-----	1	10 00	--
Kent	13	--	--	-----	5,900 00	2	50	1	10 00	--
Morris	5	--	--	-----	3,500 00	1	250	--	-----	--
New Hartford	9	2	--	-----	20,400 00	1	224	--	-----	--
New Milford	18	1	--	-----	19,150 00	3	700	3	35 00	1
Norfolk	10	--	--	-----	9,250 00	--	-----	--	-----	--
North Canaan	5	--	--	-----	7,600 00	1	70	--	-----	1
Plymouth	9	3	--	-----	9,400 00	5	285	5	40 00	2
Roxbury	7	--	--	-----	1,925 00	--	-----	--	-----	1
Salisbury	13	4	--	-----	14,050 00	1	161	1	5 00	1
Sharon	17	1	--	-----	6,750 00	1	16	--	-----	--
Thomaston	7	--	--	-----	12,000 00	2	100	1	10 00	1
Torrington	10	2	--	-----	22,000 00	1	50	1	55 00	1
Warren	6	1	--	-----	3,800 00	--	-----	--	-----	--
Washington	12	--	--	-----	6,800 00	--	-----	2	10 00	1
Watertown	9	--	--	-----	13,100 00	--	-----	2	10 00	1
Winchester	8	--	--	-----	30,350 00	--	-----	--	-----	1
Woodbury	14	2	--	-----	8,300 00	--	-----	--	-----	1
26 Towns.	269	32	1	\$460.00	\$250,785 01	20	2,876	23	\$320 00	14

MIDDLESEX COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sitzings.	Graded Schools.					Schools averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Middletown	18	18	27	1,159	1	--	--	2	--	1	--	199.55	--
" City	1	3	22	1,020	--	--	--	--	3	--	1	202.50	--
" complete	19	21	49	2,179	1	--	--	2	3	1	1	200.87	--
Haddam	12	12	15	584	1	1	--	--	--	2	--	164.33	--
Chatham	11	11	14	511	1	1	--	--	--	--	--	163.00	--
Chester	4	4	5	238	1	--	--	--	--	--	--	180.00	--
Clinton	1	3	3	72	--	--	--	--	--	2	--	195.00	--
Cromwell	5	6	9	354	3	--	--	--	--	--	1	180.00	--
Durham	6	6	6	245	--	--	--	--	--	1	--	165.00	--
East Haddam	17	17	19	744	2	--	--	--	--	3	--	164.21	--
Essex	1	6	8	350	1	--	--	--	--	--	--	190.00	--
Killingworth	8	8	8	193	--	--	--	--	--	3	--	134.12	--
Middlefield	4	4	5	188	1	--	--	--	--	--	--	186.60	--
Old Saybrook	1	4	4	210	--	--	--	--	--	--	--	185.00	--
Portland	6	7	17	1,066	1	1	--	--	1	1	1	200.00	--
Saybrook	1	2	6	290	--	--	--	--	1	--	--	190.00	--
Westbrook	7	6	6	230	--	--	--	--	--	--	--	135.00	--
15 Towns.	103	117	174	7,454	12	3	--	2	5	13	3	180.58	--

MIDDLESEX COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and build-ings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
Middletown	17	--	--	----	\$21,925 00	2	190	3	\$35 00	--
" City	3	--	--	----	40,000 00	1	600	1	60 00	1
" complete	20	--	--	----	61,925 00	3	790	4	95 00	1
Haddam	12	1	--	----	9,500 00	--	----	2	15 00	1
Chatham	11	5	--	----	7,500 00	--	----	2	10 00	--
Chester	4	--	--	----	7,800 00	--	----	1	5 00	1
Clinton	3	1	--	----	2,000 00	--	----	--	----	1
Cromwell	6	--	--	----	9,300 00	2	94	1	5 00	--
Durham	6	--	--	----	3,800 00	6	90	--	----	1
East Haddam	16	1	--	----	13,125 00	4	124	--	----	--
Essex	5	--	1	\$1,300 00	4,000 00	4	200	1	45 00	--
Killingworth	8	--	--	----	3,100 00	--	----	--	----	--
Middlefield	4	--	--	----	4,500 00	3	600	4	20 00	1
Old Saybrook	4	--	--	----	3,400 00	2	112	--	----	1
Portland	8	4	--	----	10,700 00	3	1,019	2	15 00	1
Saybrook	2	--	--	----	12,000 00	1	--	--	----	--
Westbrook	6	1	--	----	2,050 00	--	----	--	----	--
15 Towns.	115	13	1	\$1,300 00	\$154,700 00	28	3,029	17	\$210 00	8

TOLLAND COUNTY.

TOWNS.	Districts.	Number of Schools.	Departments.	Number of Sittings.	Graded Schools.					Schools Averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Tolland.....	11	10	10	317	--	--	--	--	--	--	--	151.30	--
Andover.....	4	3	3	88	--	--	--	--	--	1	--	137.66	--
Bolton.....	5	4	4	146	--	--	--	--	--	--	--	156.75	--
Columbia.....	8	8	8	257	--	--	--	--	--	1	--	145.12	--
Coventry.....	10	10	12	467	--	1	--	--	--	--	--	165.50	--
Ellington.....	9	9	9	274	--	--	--	--	--	--	--	180.00	--
Hebron.....	9	9	9	290	--	--	--	--	--	1	--	152.22	--
Mansfield.....	15	14	14	448	--	--	--	--	--	--	--	141.35	--
Somers.....	10	10	11	326	1	--	--	--	--	1	--	161.81	--
Stafford.....	16	15	23	946	2	--	--	--	1	4	--	146.08	--
Union.....	6	6	6	182	--	--	--	--	--	2	--	130.00	--
Vernon.....	9	9	30	1,281	1	--	--	--	2	--	--	180.00	--
Willington.....	9	9	9	365	--	--	--	--	--	3	--	123.33	--
13 Towns.	121	116	148	5,387	4	1	--	--	3	13	--	155.73	--

TOLLAND COUNTY.

TOWNS.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and buildings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
Tolland.....	10	--	--	-----	\$4,150 00	1	----	--	----	--
Andover.....	3	--	--	-----	900 00	--	----	--	----	1
Bolton.....	4	--	--	-----	6,300 00	--	----	--	----	1
Columbia.....	8	--	--	-----	4,050 00	--	----	--	----	1
Coventry.....	10	--	--	-----	11,450 00	3	190	2	\$10 00	2
Ellington.....	9	--	--	-----	7,700 00	5	300	--	----	1
Hebron.....	9	2	--	-----	4,950 00	--	----	2	15 00	--
Mansfield.....	14	2	--	-----	6,300 00	2	100	1	5 00	--
Somers.....	10	3	--	-----	2,975 00	1	9	10	60 00	--
Stafford.....	16	--	--	-----	37,135 00	1	221	3	35 00	1
Union.....	6	1	--	-----	2,825 00	4	200	--	----	--
Vernon.....	11	--	--	-----	60,750 00	2	675	7	90 00	--
Willington.....	9	--	--	-----	3,900 00	--	----	--	----	--
13 Towns.	119	8	--	-----	\$153,385 00	19	1,695	25	\$215 00	7

SUMMARY BY COUNTIES.

COUNTIES.	Districts.	Number of Schools.	Departments.	Number of Sitings.	Graded Schools.					Schools averaging 8 or less.	High Schools.	Average length in days.	Evening Schools.
					2 Departments.	3 Departments.	4 Departments.	5 Departments.	6 or more Departments.				
Hartford.....	233	271	533	25,044	36	8	8	3	20	15	8	181.48	7
New Haven.....	168	247	672	32,105	25	9	14	4	38	17	6	191.72	16
New London.....	209	224	369	16,379	15	8	12	5	9	40	1	169.39	--
Fairfield.....	209	246	476	22,892	28	6	4	2	25	27	3	194.42	1
Windham.....	143	143	204	8,758	13	4	1	1	5	27	1	161.12	1
Litchfield.....	238	264	327	11,325	15	4	5	1	3	63	--	168.55	1
Middlesex.....	103	117	174	7,454	12	3	--	2	5	13	3	180.58	--
Tolland.....	121	116	148	5,387	4	1	--	--	3	13	--	155.73	--
The State.	1424	1628	2903	129,344	148	43	44	18	108	215	22	180.18	26

SUMMARY BY COUNTIES.

COUNTIES.	SCHOOL HOUSES.					LIBRARIES.				
	Number.	No. Poor.	Built during year.	Cost of New.	Estimated value of sites and build- ings.	No. Schools having.	No. of books.	No. drawing State money.	Total Amount Drawn.	No. Public.
Hartford.....	267	20	4	\$16,269 00	\$1,781,075 00	101	12,036	95	\$1,200 00	16
New Haven ...	264	26	2	18,900 00	1,826,425 00	66	18,035	46	1,720 00	11
New London ..	230	21	3	4,857 89	461,200 00	37	4,184	22	455 00	8
Fairfield	246	22	3	15,045 00	868,075 00	25	4,217	30	680 00	11
Windham	145	14	--	-----	244,250 00	26	1,835	24	200 00	7
Litchfield	269	32	1	460 00	250,785 01	20	2,876	28	320 00	14
Middlesex	115	13	1	1,300 00	154,700 00	28	3,029	17	210 00	8
Tolland.....	119	8	--	-----	153,385 00	19	1,695	25	215 00	7
The State.	1655	156	14	\$56,831 89	\$5,739,895 01	322	47,907	287	\$5,000 00	82

TABLE SHOWING ENUMERATION OF PERSONS
BETWEEN 4 AND 16 YEARS OF AGE, BY
DISTRICTS, IN JAN., 1887.

HARTFORD COUNTY.

HARTFORD.	
Districts.	Enum. 1887.
First.....	2,334
South.....	3,205
Second North.....	1,345
West Middle.....	1,011
Arsenal.....	929
Washington.....	454
South West.....	64
North East.....	460
North West.....	157
Gravel Hill.....	32
Total, 10 Districts	9,991

AVON.	
1.....	22
2.....	26
3.....	45
4.....	37
5.....	35
6.....	64
7.....	28
Total, 7 Districts.	257

BERLIN.	
1.....	151
2.....	117
3.....	33
4.....	53
5.....	46
6.....	35
7.....	34
8.....	43
9.....	73
Total, 9 Districts.	585

BLOOMFIELD.	
Centre.....	58
Farms.....	43
North Middle.....	21
South Middle.....	29
Scotland North.....	26
Scotland South.....	19
Duncaster.....	26
South West.....	20
North East.....	19
Total, 9 Districts.	261

BRISTOL.	
1.....	241
2.....	117
3.....	411
5.....	116
6.....	63
7.....	11
8.....	23
9.....	17
10.....	23
11.....	14
12.....	29
13.....	221
Total, 12 Districts	1,286

BURLINGTON.	
Districts.	Enum. 1887.
First.....	25
Second.....	17
Third.....	25
Fourth.....	32
Fifth.....	25
Sixth.....	15
Seventh.....	21
Eighth.....	14
Ninth.....	94
Total, 9 Districts.	268

CANTON.	
Collinsville.....	291
Suffrage.....	53
River.....	45
East Hill.....	14
Centre.....	26
South Centre.....	34
North.....	33
West.....	23
Total, 8 Districts.	519

EAST GRANBY.	
1.....	46
2.....	18
3.....	31
4.....	14
5.....	6
6.....	27
Total, 6 Districts.	142

EAST HARTFORD.	
1 North.....	39
2 Second North.....	155
3 Centre.....	165
4 Second South.....	83
5 Hockanum.....	90
6 South Middle.....	27
7 South East.....	24
8 Burnside.....	184
9 Meadow.....	105
10 Long Hill.....	18
Total, 10 Districts	890

EAST WINDSOR.	
1.....	30
2.....	19
3.....	34
4.....	17
5.....	213
6.....	26
7.....	24
8.....	313
9.....	12
10.....	46
11.....	39
Total, 11 Districts	773

ENFIELD.	
Districts.	Enum. 1887.
1.....	90
2.....	1,201
3.....	41
4.....	35
5.....	32
6.....	26
7.....	23
8.....	56
9.....	24
10.....	29
11.....	11
12.....	38
13.....	160
Total, 13 Districts	1,766

FARMINGTON.	
Center.....	184
East Farms.....	29
North East.....	20
Scott's Swamp.....	41
Union.....	466
Waterville.....	13
West.....	45
Total, 7 Districts.	798

GLASTONBURY.	
1 Naubuc.....	115
2 Center.....	67
3 Green.....	20
4 Old Church.....	45
5 Eagleville.....	46
6 S. Center.....	97
7 Taylortown.....	32
8 Matson Hill.....	9
9 Twine Mill.....	77
10 Nayaug.....	27
11 North St.....	16
12 Wassuc.....	26
13 Middle.....	22
14 Hill.....	11
15 North East.....	22
16 Goslee.....	19
17 Neipsic.....	39
18 Williams.....	36
Total, 18 Districts	726

GRANBY.	
1.....	60
2.....	48
3.....	13
4.....	29
5.....	6
6.....	30
8.....	11
9.....	16
10.....	30
11.....	25
Total, 10 Districts	268

HARTFORD COUNTY—continued.

HARTLAND.	
<i>West Parish.</i>	
<i>Districts.</i>	<i>Enum. 1887.</i>
Center.....	15
Mill.....	15
South.....	10
South Hollow.....	15

<i>East Parish.</i>	
Center.....	20
North East.....	15
South East.....	21
South West.....	8
North Hollow.....	10
Total, 9 Districts.....	129

MANCHESTER.	
1.....	59
2.....	80
3.....	96
4.....	77
5.....	73
6.....	74
7.....	124
8.....	420
9.....	771
Total, 9 Districts.....	1,774

MARLBOROUGH.	
Center.....	27
North.....	9
North West.....	32
South.....	3
Total, 4 Districts.....	71

NEW BRITAIN.	
Consolidated.....	3,882
Total, 1 District.....	3,882

NEWINGTON.	
North.....	108
Middle.....	66
South.....	43
South East.....	40
Total, 4 Districts.....	257

PLAINVILLE.	
Consolidated.....	410
Total, 1 District.....	410

ROCKY HILL.	
<i>Districts.</i>	<i>Enum. 1887.</i>
North.....	50
Center.....	80
South.....	52
West.....	49
Total, 4 Districts.....	231

SIMSBURY.	
Center.....	41
Hop Meadow.....	33
East Weatogue.....	26
West Weatogue.....	25
Meadow Plain.....	19
Bushy Hill.....	24
Farms.....	51
New District.....	27
Union.....	17
Westover's Plain.....	18
Terry's Plain.....	16
Tariffville.....	108
Total, 12 Districts.....	405

SOUTHINGTON.	
1.....	549
2.....	37
3.....	48
4.....	309
5.....	44
6.....	34
7.....	31
8.....	37
9.....	33
10.....	91
11.....	152
Total, 11 Districts.....	1,365

SOUTH WINDSOR.	
First.....	55
Second.....	34
Third.....	57
Fourth.....	56
Fifth.....	58
Sixth.....	18
Seventh.....	41
Eighth.....	49
Ninth.....	26
Tenth.....	17
Joint.....	38
Total, 10 Districts.....	449

SUFFIELD.	
<i>Districts.</i>	<i>Enum. 1887.</i>
North West.....	61
South.....	65
East.....	46
South East.....	77
North.....	41
North East.....	62
Center.....	142

<i>2d Society.</i>	
Center.....	75
South.....	42
West.....	32
North.....	35
Total, 11 Districts.....	678

WEST HARTFORD.	
Union.....	356
Total, 1 District.....	356

WETHERSFIELD.	
First.....	69
Second.....	71
Third.....	37
Fourth.....	62
Fifth.....	24
Sixth.....	41
Total, 6 Districts.....	304

WINDSOR.	
1.....	50
2.....	22
3.....	131
4.....	37
5.....	47
6.....	39
7.....	17
8.....	34
9.....	161
10.....	54
Total, 10 Districts.....	586

WINDSOR LOCKS.	
Union.....	705
Total, 1 District.....	705

NEW HAVEN COUNTY.

NEW HAVEN.	
City District.....	17,259
Westville.....	372
South.....	60
Total, 3 Districts.....	17,691

BEACON FALLS.	
1 Center.....	127
2 Nymphs.....	20
3.....	30
Total, 3 Districts.....	177

BETHANY.	
1 Center.....	50
2 Gate.....	20
3 Smith.....	13
4 Downs.....	10
5 Beecher.....	23
Total, 5 Districts.....	116

BRANFORD.	
Union.....	714
Total, 1 District.....	714

CHESHIRE.	
1.....	85
2.....	26
3.....	28
4.....	25
5.....	9
6.....	25
7.....	18
8.....	30
9.....	32
10.....	27
11.....	34
12.....	50
Total, 12 Districts.....	395

NEW HAVEN COUNTY—continued.

DERBY.	
Districts.	Enum. 1887.
1 Up Town.....	371
2 Narrows.....	340
3 Neck.....	86
4 Ansonia.....	1,231
5 West Ansonia.....	596
6 Birmingham.....	969
7 Bear Plain.....	83
Total, 7 Districts.	3,676

EAST HAVEN.	
Union.....	83
Foxon.....	31
Total, 2 Districts.	114

GUILFORD.	
Union.....	327
Clapboard Hill.....	21
Nut Plains.....	34
Moose Hill.....	14
Leete's Island.....	53
Sachem's Head.....	9
N. G., South.....	37
N. G., Center.....	44
N. G., North.....	20
N. G., Bluff.....	7
Total, 10 Districts	566

HAMDEN.	
1.....	32
2.....	23
3.....	57
4.....	109
5.....	63
6.....	30
7.....	26
8.....	107
9.....	73
10.....	27
11.....	39
12.....	28
13.....	157
Total, 13 Districts	771

MADISON.	
1 South Center.....	18
2 Hammonasset.....	14
3 Woods.....	22
4 Neck.....	26
5 Union.....	17
7 North West.....	24
8 Boston Street.....	51
9 East River.....	27
10 North Center.....	14
11 Rockland.....	22
12 Summer Hill.....	23
13 West Side.....	10
Total, 12 Districts	268

MERIDEN.	
Corner.....	1,830
Center.....	816
West.....	825
Railroad.....	456
Old Road.....	337
Prattsville.....	561
Hanover.....	168
Farms.....	43
East.....	90
North East.....	68
South East.....	38
North West.....	31
Total, 12 Districts	5,263

MIDDLEBURY.	
Districts.	Enum. 1887.
1.....	27
2.....	17
3.....	19
4.....	35
5.....	10
6.....	10
Total, 6 Districts.	118

MILFORD.	
Union.....	690
Total, 1 District..	690

NAUGATUCK.	
1 Union Center.....	686
2 Union City.....	300
3 Millville.....	33
4 Middle.....	51
5 Straitsville.....	19
6 Pond Hill.....	24
Total, 6 Districts.	1,113

NORTH BRANFORD.	
First.....	18
Second.....	46
Third.....	9
Fourth.....	11
Fifth.....	5
Sixth.....	20
Seventh.....	22
Total, 7 Districts.	131

NORTH HAVEN.	
1.....	38
2.....	36
3.....	72
4.....	80
5.....	9
6.....	27
7.....	38
8.....	35
Total, 8 Districts.	335

ORANGE.	
Union.....	501
Northern.....	119
Western.....	54
First.....	22
Second.....	40
Third.....	35
Fourth.....	15
Tyler City.....	54
Total, 8 Districts.	840

OXFORD.	
1 Center.....	24
2 Quakers' Farms.....	20
3 Chestnut Tree Hill.....	18
4 Christian Street.....	30
5 Five Mile Hill.....	8
6 Riggs Street.....	19
7 Bowers' Hill.....	8
8 Hull's Hill.....	23
9 Red City.....	26
10 Shrub Oak.....	20
11 Red Oak.....	13
12.....	
13 Rock House Hill.....	18
Total, 13 Districts	227

PROSPECT.	
Districts.	Enum. 1887.
Union.....	95
Total, 1 District..	95

SEYMOUR.	
Consolidated.....	762
Total, 1 District..	762

SOUTHURY.	
1 White Oak.....	34
2 Bullet Hill.....	48
3 Southford.....	34
4 Kettletown.....	8
5 South Britain.....	35
6 Pierce Hollow.....	27
7 Purchase.....	38
8 Wapping.....	17
9 Poquatuck.....	13
10 Strongtown.....	0
Total, 10 Districts	248

WALLINGFORD.	
1 Cook Hill.....	25
2 Parker's Farms.....	41
3 Yalesville.....	134
4 North Farms.....	16
5, 6 Central.....	899
7 Pond Hill.....	29
8 East Farms.....	24
9 N. E. Farms.....	27
10 Tyler's Mills.....	15
Total, 9 Districts.	1,210

WATERBURY.	
Center.....	5,830
Hopeville.....	199
Waterville.....	94
East Farms.....	17
Saw Mill Plains.....	64
Buck's Hill.....	50
Bunker Hill.....	66
Oronoke.....	37
Town Plot.....	46
East Mountain.....	17
Total, 10 Districts	6,420

WOLCOTT.	
Union.....	121
Total, 1 District..	121

WOODRIDGE.	
North West.....	43
North.....	28
North East.....	18
Middle.....	26
South West.....	24
South.....	34
Total, 6 Districts.	173

NEW LONDON COUNTY.

NEW LONDON.	
Districts.	Enum. 1887.
Union	2,326
Total, 1 District..	2,326

NORWICH.	
Norwich Town.....	288
Central	1,499
West Chelsea.....	960
Greenville	889
Wequonnock	986
Falls, or Third.....	304
West Town Street.....	137
Mill, or Yantic.....	73
East Great Plain.....	73
Scotland Road.....	19
Plain Hill.....	18
Wawecus Hill.....	16
Total, 12 Districts	5,262

BOZRAH.	
First.....	25
Second.....	16
Third.....	30
Fourth.....	14
Fifth.....	49
Sixth.....	66
Seventh.....	31
Total, 7 Districts.	231

COLCHESTER.	
First.....	345
Second.....	22
Third.....	38
Fourth.....	19
Fifth.....	44
Sixth.....	22
Seventh.....	19
Center, Westchester.	24
North East	26
North West	14
South East	13
South West	27
Total, 12 Districts	613

EAST LYME.	
1 Hill.....	18
2 Flanders	71
3 Boston	18
4 Niantic	156
5 Black Point.....	46
6 Mack's Mill.....	13
7 Toad Rock.....	32
8 River Head.....	28
9 Walnut Hill.....	18
Total, 9 Districts.	400

FRANKLIN.	
2.....	19
3.....	11
4.....	15
5.....	11
6.....	31
7.....	12
8.....	34
Total, 7 Districts..	133

GRISWOLD.	
Districts.	Enum. 1887.
1.....	24
2.....	10
3.....	24
4.....	13
5.....	6
6.....	5
7.....	34
8.....	83
9.....	15
10.....	3
11.....	7
12.....	356
13 Joint District	22
Total, 13 Districts	602

GROTON.	
1.....	220
2.....	56
3.....	47
4.....	63
5.....	232
6.....	40
7.....	64
8.....	34
9.....	26
10.....	135
11.....	155
Total, 11 Districts	1,072

LEBANON.	
1.....	51
2.....	21
3.....	27
4.....	9
5.....	15
6.....	45
7.....	15
8.....	16
9.....	28
10.....	38
11.....	5
12.....	14
13.....	20
14.....	14
15.....	18
16.....	19
Total, 16 Districts	355

LEDYARD.	
1.....	15
2.....	30
3.....	29
4.....	11
5.....	14
6.....	23
7.....	14
8.....	24
9.....	8
10.....	5
11.....	32
12.....	18
13.....	33
14.....	18
Total, 14 Districts	274

LISBON.	
Districts.	Enum. 1887.
1 Newent	12
2.....	16
3.....	17
4.....	10
5.....	23
6.....	7
Total, 6 Districts.	85

LYME.	
1 Bill Hill	17
2 Pleasant Valley.....	31
3 Joshuatown.....	32
4 North Grassy Hill..	18
5 South Grassy Hill..	27
6 Sterling City.....	37
7 Hadlyme	37
Total, 7 Districts.	199

MONTVILLE.	
1.....	51
2.....	14
3.....	14
4.....	250
5.....	17
6.....	15
7.....	8
9.....	22
10.....	115
11.....	20
12.....	24
13.....	26
Total, 12 Districts	576

NORTH STONINGTON.	
1.....	28
2.....	61
3.....	36
4.....	45
5.....	14
6.....	26
7.....	24
8.....	14
9.....	15
10.....	17
11.....	19
12.....	14
13.....	24
14.....	39
15.....	14
Total, 15 Districts	390

OLD LYME.	
First.....	65
Second.....	20
Third.....	30
Fourth.....	39
Fifth.....	46
Sixth.....	27
Seventh.....	35
Eighth.....	9
Total, 8 Districts..	271

SPRAGUE.			VOLUNTOWN.		
1887.	Districts.	Enum. 1887.	Districts.	Enum. 1887.	
117	1 Baltic.....	616	3.....	18	
238	2 Potopogue.....	13	4.....	191	
8	3 Hanover.....	80	5.....	26	
102	4 Lovetts.....	29	6.....	16	
36	5 Versailles.....	264	7.....	18	
44	Total, 5 Districts.	1,002	8.....	10	
21			9.....	7	
14			10.....	16	
14			Total, 8 Districts.	302	
30					
13	STONINGTON.				
28	1 Road.....	26			
665	2 Quiambog.....	35			
	3 Mystic Bridge.....	181			
	4 Mason's Island.....	12			
	6 Mystic.....	103			
	7 Wheeler.....	15			
	8 Wolf Neck.....	7			
	9 Borough.....	426			
	10 Wequetequock.....	41			
15	11 Pawcatuck.....	29			
31	13 Randall.....	18			
7	14.....	12			
13	15 Williams.....	9			
12	16 Liberty Street.....	380			
9	18 Palmer Street.....	313			
15	19 Harbor.....	28			
102	Total, 16 Districts.	1,635			

BRIDGEPORT.		DARIEN.		GREENWICH.	
Union	9,045	1 Noroton	119	1 Meeting House	490
Total, 1 District	9,045	2 Center	154	2 Cos Cob	123
DANBURY.		3 Ox Ridge	41	3 Sound Beach	117
Center	2,623	4 Holmes	47	4 Mianus	108
South Center	558	Total, 4 Districts	361	5 North Mianus	64
Mill Plain	51			6 North Cos Cob	45
Beaver Brook	105	EASTON.		7 S. Stanwich	70
Great Plain	62	1 Center	23	8 N. Stanwich	22
King Street	53	3 Narrows	27	9 Banksville	8
Miry Brook	45	4 Union	18	10 Round Hill	61
Middle River	43	5	27	11 Quaker Ridge	45
Pembroke	19	6 Judd	19	12 North Street	34
Westville	22	7 Rock House	9	13 Clapboard Ridge	33
Long Ridge	22	9	11	14 Peck's Land	21
Starr's Plain	26	10	21	15 Riversville	38
Stony Hill, Fractional	4	Total, 8 Districts	155	16 Glenville	148
N. Ridgebury	6			17 King Street	42
Deer Hill	101			18 Byram	196
Total, 13 Districts	3,740			19 E. Port Chester	181
BETHEL.				20 Pemberwick	40
Center	258			Total, 20 Districts	1,886
Grassy Plain	253	FAIRFIELD.			
Plumtrees	59	Southport	185		
Elmwood	50	Fairfield	148	HUNTINGTON.	
Stony Hill	14	Mill Plain	113	Center	23
Wolf Pitts	37	Greenfield Hill	24	Trapfall	17
Total, 6 Districts	671	Holland	39	Isinglass	18
BROOKFIELD.		Banks, North	15	Booth's Hill	18
1	59	Banks, South	17	Walnut-tree Hill	28
2	34	Burr's	36	Upper White Hills	21
3	43	Buckley's	41	Lower White Hills	21
4	29	Fairfield Woods	40	French	45
5	27	Toilsome Hill	24	Corum	20
6	26	Hoydens	18	Long Hill	23
7	14	North	39	Mill	9
8	15	Deerfield	23	Ferry	587
Total, 8 Districts	247	Total, 14 Districts	762	Total, 12 Districts	830

FAIRFIELD COUNTY—continued.

MONROE.		NORWALK.		STAMFORD.	
Districts.	Enum. 1887.	Districts.	Enum. 1887.	Districts.	Enum. 1887.
Center.....	31	South Norwalk.....	1,055	Cosolidated.....	3,137
Cutler's Farms.....	34	Over River.....	580	Total, 1 District..	3,137
Stepney.....	27	Center.....	553		
Birdsey's Plains.....	28	Down Town.....	453	STRATFORD.	
Eastern.....	29	West Norwalk.....	70	First.....	424
Elm Street.....	22	Middle 5-Mile River.....	55	Putney.....	22
Walker's Farms.....	31	Cranberry Plains.....	54	Oronoque.....	29
Total, 7 Districts.	202	North Center.....	97	Newfield.....	538
		South 5-Mile River.....	128	West Stratford.....	235
NEW CANAAN.		North West.....	169	Total, 5 Districts.	1,248
1.....	219	Broad River.....	153		
2.....	26	Total, 11 Districts	3,373	TRUMBULL.	
3.....	40			Tashua.....	24
4.....	37	REDDING.		Long Hill.....	66
5.....	25	1 Center.....	32	Chestnut Hill.....	37
6.....	52	2 Redding Ridge.....	33	White Plain.....	40
7.....	20	3 Couch Hill.....	15	Daniels Farm.....	18
8.....	38	4 Diamond Hill.....	16	Nichols Farm.....	53
9.....	44	5 Boston.....	46	Joint District.....	9
10.....	13	6 Hull.....	11	Total, 6 Districts.	247
11.....	21	7 Umpawaug.....	28		
Total, 11 Districts	535	8 Lonetown.....	21	WESTON.	
		9 Pickett's Ridge.....	2	Middle.....	44
NEW FAIRFIELD.		10 Foundry.....	20	Den.....	11
East Center.....	37	Total, 10 Districts	224	Forge.....	19
West Center.....	17			Upper Parish.....	21
Pondville.....	17	RIDGEFIELD.		Good Hill.....	28
Great Hollow.....	2	1 Scotland.....	31	Lyons Plains.....	31
Centerville.....	24	3 Limestone.....	19	Total, 6 Districts.	154
Great Meadow.....	33	4 Titicus.....	35		
Wood Creek.....	8	5 West Mountain.....	20	WESTPORT.	
Total, 7 Districts.	138	6 Center.....	101	East Saugatuck.....	149
		7 West Lane.....	25	West Saugatuck.....	126
NEWTOWN.		8 Whipstick.....	25	Compo.....	111
Flat Swamp.....	32	9 Flat Rock.....	21	Green's Farms.....	94
Gray's Plain.....	21	10 Branchville.....	36	South Saugatuck.....	94
Gregory's Orchard.....	19	11 Florida.....	25	Cross Highway.....	85
Half Way River.....	21	12 Farmingville.....	18	East Long Lots.....	40
Hanover.....	23	13 N. Ridgebury.....	18	West Long Lots.....	41
Head of Meadow.....	9	14 S. Ridgebury.....	18	Poplar Plain.....	36
Hopewell.....	13	Total, 13 Districts	392	North.....	22
Huntingtown.....	36			Total, 10 Districts	798
Lake George.....	23	SHERMAN.			
Land's End.....	50	1.....	18	WILTON.	
Middle.....	61	2.....	28	1.....	40
Middle Gate.....	17	3.....	43	2.....	15
North Center.....	81	4.....	19	3.....	44
Palestine.....	22	5.....	12	4.....	26
Pohatuck.....	80	6.....	21	5.....	15
Sandy Hook.....	136	Total, 6 Districts.	141	6.....	50
South Center.....	22			7.....	50
Taunton.....	34			9.....	24
Toddy Hill.....	33			10.....	74
Walnut-tree Hill.....	59			Total, 9 Districts.	338
Zoar.....	48				
Total, 21 Districts	840				

WINDHAM COUNTY.

ASHFORD.		BROOKLYN.		CANTERBURY.	
1.....	19	1.....	114	1 Packerville.....	6
2.....	7	2.....	31	2 Baldwin.....	13
3.....	11	3.....	27	3 Willoughby.....	19
4.....	18	4.....	14	4 Green.....	26
5.....	16	5.....	50	5 Hyde.....	6
6.....	15	6.....	5	6 North Society.....	23
7.....	17	7.....	6	7 Frost.....	33
8.....	26	8.....	21	8 Peck.....	18
9.....	13	9.....	355	9 Smith.....	12
10.....	16	Total, 9 Districts.	623	10 Westminster.....	32
Total, 10 Districts	158			11 Raymond.....	21
				Total, 11 Districts	209

WINDHAM COUNTY—continued.

CHAPLIN.	
Districts.	Enum. 1887.
1 Center.....	39
2 Bedlam.....	20
3 Natchaug.....	12
4 South East.....	44
Total, 4 Districts.	115

EASTFORD.	
1 Eastford.....	35
2 East Hill.....	14
3 Phoenixville.....	23
4 South.....	5
5 Sibley.....	8
6 North Ashford.....	14
7 Shippee.....	12
8 Axe Factory.....	11
Total, 8 Districts.	122

HAMPTON.	
1.....	42
2.....	17
3.....	9
4.....	17
5.....	19
6.....	19
7.....	41
Total, 7 Districts.	164

KILLINGLY.	
1 Danielsonville....	496
4 Center.....	121
5 Mashentuck.....	24
6 Dayville.....	169
7 Williamsville.....	202
8 Attawaugan.....	129
9 Ballouville.....	124
11 Tucker.....	5
12 Chestnut Hill.....	128
13 Valley.....	69
14 Sparks.....	32
15 Ledge.....	12
16 S. Killingly.....	28
17 Horse Hill.....	19
18 Warren.....	20
Total, 15 Districts.	1,578

PLAINFIELD.	
Middle.....	62
Stone Hill.....	17
Flat Rock.....	30
South.....	19

LITCHFIELD.	
Consolidated.....	705
Total, 1 District.	705

BARKHAMSTED.	
1 Center.....	26
2 Center Hill.....	18
3 Washington Hill.....	16
4 North East.....	6
5 South East.....	14
6 South Hollow.....	14
7 North Hollow.....	21
8 Green.....	35
9 Riverton.....	91
10 Valley.....	22
11 Mallory.....	24
Total, 11 Districts.	287

Districts.	
Enum. 1887.	
White Hall.....	12
Black Hill.....	22
Moosup.....	238
Pond Hill.....	13
Green Hollow.....	14
Wauregan.....	439
Union.....	113
Total, 11 Districts.	979

POMFRET.	
1.....	58
2.....	35
3.....	31
4.....	5
6.....	61
7.....	42
8.....	23
9.....	32
Total, 8 Districts.	287

PUTNAM.	
1 East Putnam.....	30
2 Sawyer.....	51
3 Putnam Heights.....	14
4 Gary.....	37
5 Center.....	675
6 Rhodessville.....	803
Total, 6 Districts.	1,610

SCOTLAND.	
1.....	18
2.....	24
3.....	22
4.....	26
5.....	8
Total, 5 Districts.	98

STERLING.	
1 Ekonk.....	26
2 Bailey.....	11
3 Sterling Hill.....	25
4 Oneco.....	41
5 Stone Factory.....	45
6 American.....	15
7 Titus.....	15
8 Checkerberry.....	7
9 Granite.....	12
Total, 9 Districts.	197

LITCHFIELD COUNTY.

BETHLEHEM.	
1.....	33
2.....	16
3.....	11
4.....	10
5.....	14
6.....	13
7.....	10
Total, 7 Districts.	107

BRIDGEWATER.	
1.....	72
2.....	25
3.....	18
4.....	19
5.....	15
Total, 5 Districts.	149

THOMPSON.	
Districts.	Enum. 1887.
3.....	62
4.....	41
5.....	39
6.....	34
7.....	212
8.....	89
9.....	19
10.....	49
11.....	51
12.....	30
13.....	25
15.....	141
16.....	623
Total, 13 Districts.	1,415

WINDHAM.	
1 First.....	643
2 Natchaug.....	964
3 West.....	26
4 Jerusalem.....	13
5 N. Windham.....	50
6 Windham Center.....	49
7 Warner.....	22
8 S. Windham.....	71
9 Christian Street.....	14
10 Back Road.....	18
11 Brick Top.....	44
Total, 11 Districts.	1,914

WOODSTOCK.	
1.....	44
2.....	50
3.....	35
4.....	36
5.....	53
6.....	18
7.....	32
8.....	22
9.....	46
10.....	15
11.....	31
12.....	42
13.....	19
14.....	32
15.....	32
16.....	13
Total, 16 Districts.	520

CORNWALL.	
1.....	40
2.....	32
3.....	17
4.....	13
5.....	10
6.....	23
7.....	20
8.....	58
10.....	22
12.....	17
14.....	13
15.....	50
16.....	9
17.....	20
Total, 14 Districts.	344

LITCHFIELD COUNTY—continued.

CANAAN.		MORRIS.		ROXBURY.	
Districts.	Enum. 1887.	Districts.	Enum. 1887.	Districts.	Enum. 1887.
1.....	35	1.....	20	1 Center.....	30
2.....	27	2.....	22	2 Painter Hill.....	21
3.....	21	3.....	35	3 Burritt.....	14
4.....	19	4.....	10	4 Good Hill.....	12
5.....	12	5.....	12	5 Warner's Mill.....	17
6.....	12	6.....	7	7 North.....	31
7.....	35	Total, 6 Districts.		8 Weller.....	57
8.....	22		106	Total, 7 Districts.	
9.....	22	NEW HARTFORD.			182
Total, 9 Districts.			205	SALISBURY.	
COLEBROOK.		North End.....		1.....	17
River.....	102	Greenwoods.....		2.....	184
Forge.....	24	Pine Meadow.....		3.....	23
Sandy Brook.....	10	West Hill.....		4.....	82
Beach Hill.....	16	Town Hill.....		5.....	17
North.....	19	Bakerville.....		6.....	9
Rock.....	23	Merrill.....		7.....	181
Center.....	23	South East Middle.....		8.....	153
South.....	21	South East.....		9.....	15
South West.....	13	Torrington, Fractional.....		10.....	39
West.....	19	Total, 9 Districts.		11.....	106
Total, 10 Districts.			721	12.....	15
GOSHEN.		NEW MILFORD.		13.....	27
1 Center.....	52	1 Center.....		Total, 13 Districts.	
2 East Street.....	15	2 Park Lane.....			868
3.....	10	3 Hill and Plain.....		SHARON.	
4.....	16	4 Second Hill.....		1 Hartwell.....	11
5.....	20	5 Upper Merryall.....		2 Consolidated.....	133
6 West Side.....	44	6 Pickett.....		3 Calkins.....	26
7.....	31	7 Chestnut Land.....		4 Amenia Union.....	29
8.....	10	8 Aspetuck.....		5 Gay Street.....	15
9.....	6	9 Maryland.....		6 Sharon Mountain.....	36
10 Hall Meadow.....	3	10 Lower Merryall.....		7 White's Hollow.....	17
Union.....	3	11 Waller.....		8 Pine Swamp.....	15
12.....	12	12 Hunt.....		9 Sharon Valley.....	75
Joint Districts.....	11	13 Long Mountain.....		10 Handlin.....	22
Total, 11 Districts.		14 Gaylord.....		11 Mudgetown.....	13
	230	15 Northville.....		12 Ellsworth.....	27
HARWINTON.		16 Jerusalem.....		13 Ellsworth, Upper.....	19
1.....	24	17 Chicken Hill.....		14 Ellsworth, East.....	8
2.....	14	18 Lanesville.....		15 Perry.....	8
3.....	11	Total, 18 Districts.		16 Hall.....	7
4.....	21	NORFOLK.		17 West Woods.....	20
5.....	14	Center.....		Total, 17 Districts.	
6.....	18	West Norfolk.....			481
7.....	28	East Middle.....		THOMASTON.	
8.....	16	North Middle.....		Union.....	822
9.....	7	South Middle.....		Total, 1 District..	
10.....	28	North Norfolk.....			822
11.....	40	North End.....		TORRINGTON.	
12.....	9	South End.....		Union.....	1,081
Total, 12 Districts.		South Norfolk.....		Total, 1 District..	
	230	Pond District.....			1,081
KENT.		Total, 10 Districts.		WASHINGTON.	
1 Flanders.....	52	NORTH CANAAN.		1 Center.....	49
2 Plains.....	57	1.....		2 Calhoun Street.....	64
3 North Kent.....	25	2.....		3 Davis Hollow.....	16
4 Macedonia.....	15	3.....		4 Upper End.....	17
5 Bull's Bridge.....	23	4.....		5 East Street.....	19
6 South Kent.....	24	5.....		6 South Street.....	7
7 Geer Mountain.....	22	Total, 5 Districts.		7 Church Hill.....	16
8 Rock.....	20	PLYMOUTH.		8 Marbledale.....	13
9 East Kent.....	30	1 Center.....		9 New Preston Hill.....	14
10 Fuller Mountain.....	9	2 Terryville.....		10 New Preston.....	54
12 Kent Hollow.....	26	3 East Plymouth.....		11 Christian Street.....	21
13 Ore Hill.....	23	4 North.....		12 Woodville.....	8
14 Skiff Mountain.....	10	5 Baldwin.....		Total, 12 Districts.	
Total, 13 Districts.		6 Greystone.....			298
	341	7 Town Hill.....			
		8 Allentown.....			
		Total, 8 Districts.			
			481		

LITCHFIELD COUNTY—continued.

WARREN.	
Districts.	Enum. 1887.
Center	21
College Farms	21
North	26
North East	11
Pond	24
West	3
South River	2
Total, 7 Districts.	108

WATERTOWN.	
Center	205
Guernseytown	17
French Mountain	12
Linkfield	12
Nova Scotia	27

Districts.	Enum. 1887.
Polk	23
East Side	25
Oakville	68
Poverty Street	28
Total, 9 Districts.	417

WINCHESTER.	
1	363
3	23
4	615
5	15
6	20
7	28
8	19
9	15
Total, 8 Districts.	1,098

WOODBURY.	
Districts.	Enum. 1887.
1 Middle Quarter	38
2 Down Town	55
3 Up Town	69
4 Puckshire	21
5 Minortown	19
6 Nonnewaug	15
7 Flanders	17
8 Weekkeepeemee	26
9 Hazel Plains	11
10 West Side	45
11 Transylvania	15
12 Quassapaug	7
13 Cat Swamp	20
14 Hotchkissville	86
Total, 14 Districts.	444

MIDDLESEX COUNTY.

MIDDLETOWN.	
City	1,481
Westfield, 1st	46
Westfield, 2d	31
Westfield, 3d	22
Westfield, 4th	37
Newfield	31
North Saddle Hill	33
South Saddle Hill	91
Industrial	140
West Long Hill	44
East Long Hill	44
Durant	125
Farm Hill	86
Johnson Lane	10
Hubbard	44
Bow Lane	26
Miller's Farms	306
Haddam Road	9
Maromas	33
Total, 19 Districts.	2,639

HADDAM.	
1 Haddam Center	88
2 Higganum West	164
3 Ponsett	16
4 Shailerville	31
5 Turkey Hill	11
6 Candlewood Hill	21
7 Tylerville	15
8 Walkley Hill	15
9 Brainerd Hill	30
12 Burr	17
13 Higganum East	52
14 Haddam Neck	21
Total, 12 Districts.	481

CHATHAM.	
Center, E. Hampton	125
N. Center	46
Clark's Hill	25
North	14
South East	32
East	29
N. W., Middle Haddam	82
Gate	43
Center	29
Chestnut Hill	29
Pine Brook	15
Total, 11 Districts.	465

CHESTER.	
North	56
South	83
Middle	58
West	60
Total, 4 Districts.	257

CLINTON.	
Union	248
Total, 1 District.	248

CROMWELL.	
North West	66
West	81
North	96
Center	62
South	73
Total, 5 Districts.	378

DURHAM.	
North	27
Quarry	49
Center	35
South	14
Middle West	15
South West	14
Total, 6 Districts.	145

EAST HADDAM.	
1 Center	23
2 Landing	60
3 Red Lane	35
4 Up Town	35
5 Bashan	54
6 Town Hill	14
7 Wicket Lane	39
8 Leesville	17
9 Moodus	96
10 Millington Green	29
11 Plains	24
12 Olmstead	19
13 Foxtown	8
14 Tater Hill	13
15 Millington West	24
16 Ackley	13
17 Hadlyme	35
Total, 17 Districts.	538

ESSEX.	
Consolidated	326
Total, 1 District.	326

KILLINGWORTH.	
South West	8
Center	17
Pine Orchard	10
Union	19
Black Rock	9
Stone House	10
Lane	19
Chestnut Hill	10
Total, 8 Districts.	102

MIDDLEFIELD.	
1 North	36
2 South	73
3 East	37
4 Falls	56
Total, 4 Districts.	202

OLD SAYBROOK.	
Union	307
Total, 1 District.	307

PORTLAND.	
1	118
2	629
3	48
4	50
5	16
6	126
Total, 6 Districts.	987

SAYBROOK.	
Union	236
Total, 1 District.	236

WESTBROOK.	
First	43
Second	14
Third	10
Fourth	14
Fifth	13
Sixth	34
Seventh	17
Total, 7 Districts.	145

TOLLAND COUNTY.

TOLLAND.

Districts.	Enum. 1887.
1.....	32
2.....	19
3.....	27
4.....	28
5.....	31
7 and 9.....	16
8.....	19
10.....	18
11.....	8
12.....	11
13.....	22
.....	2
Total, 11 Districts.	233

ANDOVER.

North East.....	16
North West.....	10
South East.....	29
South West.....	16
Total, 4 Districts.	71

BOLTON.

Center.....	40
North.....	44
South.....	24
South West.....	26
North West.....	10
Total, 5 Districts.	144

COLUMBIA.

Center.....	25
Chestnut Hill.....	30
Hop River Village.....	55
Pine Street.....	21
North.....	11
West.....	18
South West.....	7
Hop River.....	18
.....	3
Total, 8 Districts.	188

COVENTRY.

1.....	122
2.....	33
3.....	46
4.....	23
5.....	18
6.....	18
7.....	21
8.....	25
9.....	29
10.....	25
Total, 10 Districts.	360

ELLINGTON.

Districts.	Enum. 1887.
1.....	120
2.....	72
3.....	29
4.....	21
5.....	24
6.....	70
7.....	15
8.....	20
9.....	22
Total, 9 Districts.	393

HEBRON.

First.....	51
Second.....	21
Third.....	21
Fourth.....	40
Fifth.....	24
Sixth.....	21
Eighth.....	22
Ninth.....	12
Tenth.....	21
Total, 9 Districts.	233

MANSFIELD.

1 Mansfield Center.....	43
2 Mansfield Hollow.....	40
3 Spring Hill.....	21
4 North Center.....	32
5 Four Corners.....	36
6 Merrow Station.....	13
7 Mansfield Depot.....	28
8 Eagleville.....	53
9.....	0
10 City.....	13
11 Chestnut Hill.....	16
12 Atwoodville.....	40
13 Mount Hope.....	17
14 Gurleyville.....	21
15 Wormwood Hill.....	19
Total, 15 Districts.	392

SOMERS.

1.....	31
2.....	21
3.....	25
4.....	25
5.....	9
6.....	113
7.....	15
8.....	16
9.....	13
10.....	12
Total, 10 Districts.	280

STAFFORD.

Districts.	Enum. 1887.
1 Furnace Hollow.....	73
2 Springs and Foxville.....	616
4 Street.....	17
5 Staffordville.....	64
6 Washburn.....	34
7 Works.....	13
8 Rockwell Hill.....	20
9 Hall.....	13
10 Village.....	18
11 Hydeville.....	33
12 Square Pond.....	25
13 Center.....	38
14 Crow Hill.....	8
15 Lull.....	4
16 Patten.....	19
17 Kent Hollow.....	12
Total, 16 Districts.	1,007

UNION.

1.....	35
2.....	30
3.....	10
4.....	15
5.....	10
6.....	10
Total, 6 Districts.	110

VERNON.

East.....	949
West.....	502
North West.....	15
South East.....	27
Center.....	39
South.....	33
South West.....	58
Talcottville.....	58
North East.....	105
Total, 9 Districts.	1,786

WILLINGTON.

1.....	31
2.....	27
3.....	12
4.....	3
5.....	10
6.....	34
7.....	25
8.....	15
9.....	51
Total, 9 Districts.	208

AMOUNTS PAID BY STATE FOR LIBRARIES AND APPARATUS.

Report of Year.	Amount.
1857.....	\$760.00
1858.....	2,240.00
1859.....	2,100.00
1860.....	1,160.00
1861.....	730.00
1862.....	435.00
1863.....	490.00
1864.....	530.00
1865.....	405.00
1866.....	590.00
1867.....	515.00
1868.....	865.00
1869.....	1,730.00
1870.....	1,960.00
1871.....	2,385.00
1872.....	2,345.74
1873.....	2,955.00
1874.....	3,340.00
1875.....	2,450.00
1876.....	2,900.00
1877.....	2,270.00
1878.....	2,975.00
1879.....	3,190.00
1880.....	3,040.00
1881.....	3,005.00
1882.....	4,255.00
1883.....	3,470.00
1884.....	3,090.00
1885.....	3,025.00
1886.....	3,300.00
1887.....	3,525.00
1888.....	5,000.00
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\$71,030.74	

EXTRACTS

FROM

THE REPORTS OF SCHOOL VISITORS.

The topics are arranged alphabetically.

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REPORTS OF SCHOOL VISITORS.

Arbor Day.—Our schools observed Arbor Day in a commendable way. The object having been duly explained by the teachers, the day was spent by cleaning up the yards and by a general transplanting of shade trees, etc., around the school-houses. It is believed that no other town in the State can show a better record of the work done than ours: over 300 trees, shrubs, and vines were set out and nearly all of them have made good growth.—WEST HARTFORD, *A. C. Sternberg, Acting Visitor.*

Attendance.—While the teachers have been faithful and diligent, the numbers in the different schools decline. As the warm weather comes on the children are wanted at home. It follows that the smaller schools are almost without scholars as the school lengthens into the summer.

The time has fully come when the whole subject of schools should come up for discussion, and a new policy should be adopted in their management. Such measures should be adopted as would give, as near as can be, twenty-five scholars to a school with a probable average attendance of twenty pupils.—TOLLAND, *A. L. Benton, Acting Visitor.*

Attendance, Average.—During the past year it has been claimed in various quarters that a comparison of the reports from the town of Hartford to the State Board of Education with the reports of other towns of the State showed that the average expense per child was greater here than in other places which provide equally good school privileges.

It should be understood, however, that these figures were obtained from a comparison of the reported "average attendance" in the various towns, with the amounts paid for educational purposes. Under the present system there is no regularity in the method of computing average attendance. In some schools the child entering school at the beginning of the term, and remaining for a few weeks, is carried through to the end on the books as a regular pupil, although he may be absent the greater portion of the time. In others, a child absent five sessions is dropped from the rolls, and re-entered as a pupil on his return. The result, of course, would be that in the latter school the percentage of average attendance would be very much greater than in the former. The difference indicated, under many variations, of course, exists throughout the State, and the reports are therefore not trustworthy

guides in this particular. We have also several large parochial schools here which serve to diminish the average attendance, while in New Haven, for instance, one large school of this character is under the general supervision of the town, and thus increases the average attendance. It should also be remembered that considerable sums are each year carried into the account of school expenses in this town by reason of interest on debts incurred for the erection of new buildings. Especially is this the case the present year, and will be for several years to come. With the system of districts here there is no chance to keep these amounts out of the returns, while in some other places they become a part of the general debt of the town, and are not reported to the State Board. With a lack of uniformity in all these important respects, comparisons of the character above referred to cannot be otherwise than unjust and deceptive.—HARTFORD, *W. W. Hyde, Acting Visitor.*

Attendance, Irregular.—The obstacles in the way of the successful prosecution of the work are mainly the same from year to year. Absenteeism, especially in the rural districts, is a perennial evil that has often been commented upon in the annual reports of your board. Giles Potter, the state agent for securing the due enforcement of the laws regarding the education of children, has made several visits to the town during the year and has done what he could to investigate and correct the most flagrant cases of non-attendance.

But the root of the evil is embedded mainly in the indifference of parents and guardians. The remedy will be found in imbuing the minds of the people with a sense of the supreme importance of education as an element of their children's welfare and usefulness in life.—DANBURY, *Wm. F. Taylor, H. B. Scott, Rev. J. A. Freeman, J. E. Walsh, P. H. Lynch, M.D., Rev. A. C. Hubbard, School Visitors.*

Attendance, Irregular.—In the other schools which I have visited the average scholarship of pupils the same age is higher than in this school. I have asked: what is the cause? It cannot be entirely the fault of the teachers employed, perhaps not at all. I think the trouble may be traced to two causes. First, the superior facilities which the children of this school have for play, and the more numerous attractions which call their minds from study; and second, the fact that so many of the parents seem to take so little interest in the schools and in the improvement of their children. This being true, there is too much periodical attendance. Too many of the children are permitted to attend school or stay away as they choose. This fact will ruin any school, and unless something can be done to secure a better attendance, this department will always be behind. I have thought that some system of rewards might be devised by the district by which a better attendance might be secured. It is impossible for the teacher to do this on the wages paid for teaching.—GRANBY, *C. C. Campbell, Acting Visitor.*

Attendance, Irregular.—Irregular attendance still prevails to a greater extent than we like to see it. It is one of the greatest evils the teachers have to contend with. Nothing so discourages a teacher or is such a hindrance to progress in school. It demoralizes the whole school. Absence and tardiness go hand in hand to destroy the efforts of our best teachers, and unless the parents will see that it is corrected, or the school officers close the doors upon such pupils after proper warning, the school will be a failure, no matter how good the teacher.—HADDAM, *A. W. Tyler, Acting School Visitor.*

Attendance, Irregular.—The child goes to school if he pleases, or if the parent pleases. The responsibility for attendance is divided among so many that the very end for which all the outlay is made is not gained. How would this policy work in other cases? Does the manufacturer build the mill with costly machinery and competent workmen and then give no care to the stock that is put in, or the goods that are turned out? What is not true of the mill is too apt to be true of the school. The attendance which the law requires goes but a little way toward securing all the advantage that should accrue from the school privileges now afforded. Would it not be a good thing to have a law requiring a census to be taken at the beginning of each term to ascertain what children are not in school, to insist on regularity in attendance and thus to reduce as far as possible the evil of absenteeism often allowed for trifling reasons?—MANCHESTER, *Rev. S. W. Robbins, Dr. O. B. Taylor, Acting Visitors.*

Attendance, Irregular.—Irregularity of attendance is still the great obstacle to the best success of our schools, but it has been less the last year than heretofore. Let us all do our best to make it grow less from year to year, for it involves a serious loss to all—to those in regular attendance, whose progress is impeded, like that of a vessel loaded with barnacles; to the irregulars, who lose the chain of connection between lessons, and become hopelessly discouraged and bewildered; to the teacher, whose labor is increased, and time and patience severely taxed; and to the tax-payers, who must pay as much for seats much of the time empty, as for those always full.—MIDDLEFIELD, *Rev. A. C. Denison, Acting Visitor.*

Attendance, Irregular.—Irregularity in attendance is, with us, as with the other cities of the state, a very serious evil. (See report of the State Board of Education for 1887, pages 223, 224). The remedy, it seems to us, lies largely with the parents. Children are allowed, on frivolous pretexts, to absent themselves from school. Yet these are the parents who are most likely to complain because their children make no progress. We have reason to hope that there will be a more regular attendance during the present year.—MIDDLETOWN CITY, *Rev. C. A. Piddock, Acting Visitor.*

Attendance, Irregular.—Although it is an unpleasant subject, yet we feel that we ought to again call attention to the ever-recurring evils of irregular attendance, which embarrass and perplex our teachers, and seriously interfere with the progress of the school. This is a problem that neither the Legislature, the Board of Education, or the teachers can solve without the active assistance and coöperation of parents and guardians. If parents would consider that every absence hinders the pupil's progress and that of his class, breaks the chain that requires time and labor to unite, and invariably places him behind his class, and often renders him unworthy to remain in it, I think that they would not allow their children to remain at home upon any trivial excuse, but only in case of most urgent necessity. With some parents—but they are few—the wish or whim of a child is of more importance than their future welfare, and they are allowed to form habits that will be a detriment to them through life; they lose interest in their studies, and school life becomes a burden, when it ought to be a pleasure. Children have rights, under our present school system, that parents are bound to respect, the right to an education that will fit them for the duties of citizenship, and parents who are neglectful of this duty are guilty of an irreparable wrong and injury to their children. In visiting our schools we find that the best scholars are those who are regular in their attendance, while the blame for the poor scholarship of those who are not, is frequently thrown on a good teacher.—MILFORD, *N. E. Smith, President.*

Attendance, Irregular.—I am impelled to allude in closing my report to the evil of irregular attendance. The best teacher possible can accomplish little if the scholars will not come regularly. Here the parents can coöperate with the teachers in an efficient manner. Insufficient reasons for non-attendance should not be received. Children should be made to feel that going to school is a business, that it has reference to future welfare, and therefore they should be taught in a kindly and firm manner never to shirk their duty. The young have their duties as well as the old.—NORTH BRANFORD, *Rev. F. Countryman, Acting Visitor.*

Attendance, Irregular.—One of the most serious drawbacks to successful work in our schools is the irregular attendance, and this is due in nearly every instance to the lack of oversight on the part of parents. For a large part of the absence the teachers not only are not responsible, but are powerless to prevent it. Their work is crippled and an injury is done to the scholars. The remedy lies with the parents.—PUTNAM, *Eric H. Johnson, Omer La Rue, Acting Visitors.*

Attendance, Irregular.—The Board of School Visitors present herewith the usual tabulated reports of the schools for the past year. A comparison of this with the previous year will show

that though the aggregate attendance has increased it has not kept pace with the increase of enumeration. The Board considers irregularity of attendance one of the greatest hindrances with which teachers have to contend, and lowers the standard of proficiency in the schools when it prevails. In nearly every case when pupils were found lacking in proficiency the cause was found to be attributable to irregularity of attendance, and in one school, where all other conditions were favorable, the register was covered with marks of absence and the school almost a failure; while in another school, similarly situated with about the same number of pupils registered, there was a corresponding degree of attendance, and the pupils were found to have obtained proficiency in their studies. We urge upon parents the necessity of making whatever sacrifices may be necessary in order to have their children always in their places at school. The amount which children can earn during the school year is small, while the amount of learning they can treasure up at the same age will prove invaluable in later years. The attention of parents and employees is called to the act passed by the last legislature, providing that children between the ages of six and thirteen shall attend school twenty-four weeks each year instead of twelve as formerly.—SOUTHINGTON, *A. F. Barnes, Acting Visitor.*

Attendance, Irregular.—Still greater salutary results would follow, adding prosperity to progress, if truancy and absenteeism, in the village schools especially, were more closely looked after by parents and guardians, with the coöperation of District Committees. No evil existing in school can be more detrimental to its progressive welfare than careless or willful disobedience in this direction. It should never be allowed. Three months of unbroken daily attendance of a child in school will be of more benefit to that child than a consecutive *six* months, weekly broken by a day or two absence. As a teacher, experience has taught me this fact; and the wish is uppermost that parents might understand it as well, and correct indulgence of the evil. Then there are many children in the town of lawful school age who did not attend a single day last year; and the large number of this class, when brought to the official notice of the Board, caused so much surprise that it instructed its secretary to set the fact before the people in a leaflet, with quotations from the compulsory school laws, thereby admonishing parents and guardians of their duties, and the consequences following violations of said duties.—STONINGTON, *C. H. Babcock, Sec'y.*

Attendance, Irregular.—The irregular attendance of pupils is one of the greatest obstacles in the way of the full success of our schools. In this the fault rests largely with the parents, who fail to realize that the loss of a day occasionally, interferes with the interest of the student in his studies, lowers his position

in his class, and if the absence is of frequent occurrence, makes it necessary for him to drop into a lower class. This invariably causes dissatisfaction to the parents and scholar. For parents to keep their children at home unnecessarily or for any trivial or no excuse allow them to stay at home, is a wrong to the children and to the schools. As the schools are supported at the public expense, the attendance should be as large as possible and this can easily be secured through the hearty coöperation of the parents and teachers.—VERNON, *Charles Phelps, W. B. Foster, Acting Visitors.*

Attendance, increased cost per pupil by reason of irregularity.—Special attention is invited to the average attendance in the several schools as compared both with the number registered and with the enumeration of Jan. 1, 1887.

For instance, in the First District there were enumerated thirty-eight scholars, and thirty-seven names were registered as attending school some time during the year, while the average attendance falls to 21.16. Then the expense per scholar, based on the enumeration is \$4.29, while based on the average attendance it is \$8.74. The ratio varies in the different schools, but it will be observed that the average cost of all the schools, based on the enumeration, is \$9.62, while it is \$4.74, based on the average attendance. Here is a loss which the Town cannot afford. And, besides, it shows a startling amount of indifference on the part of many parents concerning the education of their children. Some allowance is to be made on account of age, as a number of the children are from four to six years of age, so that the weather and traveling many times prevent their attending school. But an examination of the school registers shows that many besides the youngest children are absent much of the time from school. It looks very much as if some parents are content to send their children to school just enough to escape the penalty of the law.—EASTFORD, *Rev. C. M. Jones, John P. Trowbridge, Acting Visitors.*

Attendance, Need of regular.—Your Visitor finds the prime want in all the schools under his supervision *discipline and regularity*, and in his opinion, the very first requisite for discipline and regularity is more authority in the hands of teachers and school officers to compel *attendance with regularity*. He would suggest that all teachers be required to keep a record of absences unexcused (i. e., without adequate reason), and when such absences amount to a certain fixed number of school days, complaint be made to some superior officer (as e. g., the Acting School Visitor), notice having meanwhile been formally given to parents or guardians; and that teachers be authorized to fix reasonable penalties for truancy.—OLD LYME, *Rev. B. W. Bacon, Acting Visitor.*

Attendance, Compulsory.—The citizens of the good old town of Suffield owe it to themselves that our boys and girls be required to

attend school at least the time prescribed by law, for nine times in ten it is the illiterate persons who commit the petty crimes so annoying to us all. Let us then do the one thing that remains to prevent those that are bound to pervert liberty into license. Choose a truant officer, as the law allows, in every school district if necessary, whose business shall be to put in force the law that says all children between the ages of eight and fourteen years must attend school regularly six months in the year. Now this is not asking too much. One-half of the time is then left for manual labor or play as parents desire. This is a grave question and one I trust that will not be passed lightly over.—SUFFIELD, *G. F. Kendall, Secretary.*

Consolidation.—The Acting Visitors believe that better schools could be maintained at less expense, and that it would be greatly to the advantage of all concerned, if the Town would consolidate the several school districts into one, and assume and maintain control of several schools as provided by law.—COLEBROOK, *Howard Smith, S. A. Cooper, Acting Visitors.*

Consolidation.—Your Secretary would here express his conviction that the greatest progress in the improvement of the schools of the town might be secured by vesting their entire management in the hands of a Board especially elected by the town for that purpose. Our school laws commend and make such special provision, at the option of the voters of the town. Town management is adapted to secure more thorough supervision, more general improvement, increased advantages of instruction to those dwelling in isolated districts, and greater economy in the expenditure of school funds. The interests of the children would be withdrawn from the pettiness of district politics and entrusted directly to the representatives of the town.—GRISWOLD, *Rev. Charles H. Peck, Acting Visitor.*

Consolidation.—The year's work has deepened in the minds of your visitors the feeling that the control of the schools should be in the hands of the town, under one general management, even if the Districts are not abolished. We are satisfied that this would give the schools as a whole a higher grade of teachers, and thus secure better results.—PLAINFIELD, *R. Ensworth, Rev. S. H. Fellows, J. S. French, W. Tillinghast, Acting Visitors.*

Consolidation.—There is a crying need of consolidation of the schools in this town. We except the school in South Willington, which, on account of the compactness of the district and the high excellence of the school, does not need the change. Could our remaining districts unite, a fine graded school, with a male teacher and an assistant, at a less cost than it now takes to run the schools in their present condition, would be the gratifying result. Our town affords just such a case of needed district consolidation as the existing law provides for.—WILLINGTON, *Charles T. Preston, Chairman.*

Consolidation, Advantages of.—For some time past the State Board of Education, and others who were interested, have urged upon the Legislature the passage of a law making it the duty of the towns to hire all the teachers for the several districts ; thus changing this service from the district committee to a committee elected by the town. This would not necessarily be the present Board of School Visitors, but a new appointment of two or three persons by the town for this special object.

There would be a very obvious advantage in having the teachers hired by a committee well acquainted with their qualifications.

The duties of the district committees give them but little opportunity to become acquainted with the merits of the teachers, and the opportunity, small as it is, soon ends with their term of office. For want of this acquaintance they often fail to make a good selection.

The examination of teachers, and the frequent opportunities of seeing their work in the school-room, would give to the town committees that acquaintance which would enable them to select the best talent and make the position more permanent.

A very good teacher can be employed in one school only a year or two, and often the time is much shorter. A few of the parents become dissatisfied, and a change is demanded ; unless the teacher is a resident she leaves town. A town committee could transfer this teacher to another district, where she could commence anew with satisfaction to all concerned.

Many good teachers who in the past have left town, could have been retained instead of having their places supplied with inferior teachers.—BLOOMFIELD, *Henry Gray, Acting Visitor.*

Cooking.—While in many other cities, schools for teaching cooking have been established it has not seemed best hitherto to urge this feature. But it is now apparent to all who have read and thought on this matter that the opponents of this innovation, if any there are, have absolutely no ground upon which to stand. Is there anything now taught in the schools that has better claim for recognition, considered either educationally or practically ? I think not. The only wonder is that our vision has been obscured so long.

As a branch of chemistry, cooking affords ample opportunity for training the observation and judgment. As related to the health, comfort, thrift, happiness, and morals of the entire community, it has the most indisputable claim for adoption. Two cooking schools organized at convenient points in the city would enable all the girls, say of grade VII, to receive weekly lessons. The expense of furnishing these rooms would be far less than the cost of fitting up one shop for carpentry. It has been ascertained by experience, that the necessary expense for materials used in giving cooking lessons is surprisingly small. For example, the cost of twenty lessons given 150 girls at the Tennyson St. School in Boston was

§35. Hence the financial objections are not serious. All that is spent here will be indirectly saved to the taxpayers through the moral and social condition of the people. If sewing, cooking and domestic economy are systematically taught, not only will our schools more nearly fulfill the requirements justly made of them, but intemperance and crime will be lessened and life will be better for many who are unhappy because they are unfortunate.

A former member of our Board of Education, Gen. Francis A. Walker, is ably serving his day and generation by using his voice and his pen in favor of teaching the industrial and domestic arts. Says he in a recent paper:

"On the subject of sewing and cooking, there are many who can speak with much more of intelligence and of authority than myself; but I yield to no one in appreciation of the importance of these exercises, as an integral part of the authoritative curriculum of our schools. So vast appear to me the advantages, social and physiological, to be derived from this source, that, were these exercises in no sense, and in no degree educational, I would still lay this duty on the schools, as a burden to be carried for the general good, and would employ the authority of the Commonwealth to train every girl within our borders in these all-essential domestic arts. If as Horace Mann said, it is a crime for a boy here to grow up in ignorance of reading and writing, what sort of an offense is it for a girl here to grow up in ignorance of cooking and sewing? Think from what kind of homes tens of thousands of our children in the public schools every morning come,—rooms disordered and ill-kept, amid foul surroundings, presided over by a mother who cannot decently patch or darn a garment that is beginning to give way, and who only knows enough of cooking to take the perhaps abundant materials supplied her, and render them, by dirty and wasteful processes, into disagreeable and indigestible messes, productive of dyspepsia and scrofula, and provocative of a craving for strong drink. As a mere matter of public safety, can we afford to breed such a population in this Republic?"—NEW HAVEN, *S. T. Dutton, Superintendent.*

Course of study.—In the majority of Districts the people realize the profitableness of employing experienced and well-tried teachers, and of retaining those whose ability and worth have been proven by their good works. The system and course of study adopted by the Board but a few years since, and revised from time to time to suit the needs of the graded schools, are working so well that it is trusted that, in a few years hence, each of the village schools will annually graduate a large class of pupils, well grounded in a knowledge of not only the common and higher English branches, but in science, literature, and the languages. Such graduates are and will be entitled to diplomas and certificates combined, qualifying said graduates to teach in any of the

schools in the Town without further examination. Already classes in the Stonington Borough and Mystic Bridge High Schools have been so graduated, with honor to themselves and credit to the Districts.—STONINGTON, *C. H. Babcock, Secretary.*

Course of study, advantages of.—During the year just passed, the School Committee have sought to increase the efficiency of the schools by every means in their power, aiming, at the same time, to keep the expenses as low as possible. The first thing to be accomplished was to raise the standard of scholarship in all the schools, and to stimulate such enthusiasm on the part of the pupils, and interest and coöperation on the part of parents, as should secure the desired results. To this end a graded system was adopted, which laid down a regular course of study to which all should conform. It was believed that by introducing uniformity in both the subjects and method of study on the part of all in the same stage of advancement, there could be secured greater thoroughness, more regular and rapid promotion, more intelligent appreciation of the subjects studied, and that the spirit of honest ambition—so essential to success in any undertaking—might thereby be aroused.—ESSEX, *E. W. Wetmore, Chairman.*

Discipline.—The inculcation of self-government has been the aim. While we have sought for and in general secured, by coercive measures if necessary, the *order* essential to the efficient conduct of the exercises of the school-room, we have not for a moment lost sight of the supreme importance of training each pupil in the art of self-mastery. To place before each mind motives sufficiently powerful to influence to right conduct, and to keep such motives operative continuously, has been our persistent study. This has been done with varying degrees of success, according to the wisdom and tact of the teacher. Without a fair degree of order and quiet gained by some means, the school is an utter failure. Happy is that teacher, who is so wise in requirements, so happy in enforcing them, so full of expedients in meeting the varied needs of the differing dispositions, that the keen sense of justice so characteristic of children is not offended, and to whom the genuine respect and hearty love of the pupils are involuntarily given.—NORWICH, CENTRAL DISTRICT, *N. L. Bishop, Supt.*

Distribution of Money.—Many of our noted educators assert that the money derived from our school fund does more harm than good to the cause of common school education in this State. The leading point made by them is that the people would take more interest in the schools were they obliged to pay entirely for their maintenance, as in other states. Of the \$1,282.00, the cost of running our schools, per the last report, \$454.00, over one-third of the amount, came from the school fund. That palpable injustice is done to our more sparsely populated districts in its distribution is indisputable. The amount appropriated per capita should be

greater in proportion. In our cities and boroughs, where the schools number from 75 to 200, or more, the amount drawn from the fund provides the best of teachers; whereas, in the case of our small districts, where schools must, or ought to be, maintained just the same, the amount received is sadly disproportionate. For instance, the individual pupil in Willington ought to be benefited as much by the public money as the individual pupil in Willimantic is. It is to be hoped that the day is not far distant when there will be proper legislation in this direction.—WILLINGTON, *Chas. T. Preston, Chairman.*

Graded Schools, Advantage of.—Seeing, as my visiting has compelled me to do, the systems side by side, I have been impressed anew with the superior efficiency of graded schools. Even in the matter of the teacher's personal influence and helpfulness for individual scholars, where it would seem that the advantage would lie with the ungraded schools because of the smaller number of pupils, the volume is decidedly in favor of the graded schools. Seeing this as an actual fact, the inquiry has pressed itself upon me whether it would not be the true policy for the town, instead of supporting small ungraded schools, to provide for carrying each day the children of every district to the graded schools of the villages. That has been tried successfully in other States and in some towns of our own State, but I have no reports to show how general the success has been. Personally, I believe that under such a plan the attendance would be more regular, the children would receive better training, and the cost to the town would be less. The matter is worth considering.—FARMINGTON, *Rev. C. S. Lane, Acting Visitor.*

Industrial Education.—The latest scheme for hastening the millennium is what is called *Industrial Education*, by which is meant training in the common industries of life. Some of its more enthusiastic advocates would fain turn our school-houses into work shops at once, and relegate the course of study, wrought out with so much thought and care, if not to oblivion, at least to a small fraction of the school-day. Too much education and too little work is the cry. Children should learn to *do* something that will help them to a living. It is certainly to be regretted that the old fashioned custom of "learning a trade" has so far fallen into disuse. But before turning the school-master out, or requiring him to combine a variety of trades with his profession, it would be wise to inquire soberly, what the public school is for? Is it to prepare a child for a particular trade-calling or profession, or to give him an intellectual start in the world, that will be of service to him in any position?

The claim of the common school to public support, or to support by a general tax, is based upon the theory that man has certain intellectual faculties which need to be developed and trained to be of service: that there are certain things that every one ought to know, and a certain cultivation of faculties that every one, without

regard to rank or station, ought to possess ; that it is not only for the interest of the community, but the obligation which every generation owes to the one that is to follow, to give it, in this general way, a start for the race of life ; and extraordinaries excepted, to give all the same chance.

It is quite impossible to tell, in most cases, what particular aptness a child may develop, and if that difficulty were removed, the fact would still remain, that training in and for any particular handiwork does not come within the purview of the public school as at present constituted. If the scope of the schools is ever enlarged to meet this fresh demand, the following changes must need be made :

1. There must be a large increase of accommodations in the way of school-room—together with no small outlay for tools and implements.

2. The school hours must be extended, or our present requirements abridged, to make way for the new industries.

3. Additional teachers, and those having some skill in handicraft, must be provided, or the duties of our present teachers still further increased. The outlook is not encouraging.

The testimony we have gathered from places where the experiment has been tried is far from satisfactory. The first attempt is generally attended with better results than subsequent efforts ; and the earlier reports are more favorable than those that follow.

This problem soon arises in connection with the matter, to perplex school authorities. If boys are to be taught the use of the trowel, plane and chisel, why not telegraphy, type-writing and the compounding of drugs ? and if girls are to be taught needle-work and the cutting and fitting of garments, why not cookery as well ? The problem assumes alarming proportions.

While therefore industrial training, in its specific sense, is clearly beyond the province of the public school, there are certain branches verging close upon the industrial order, which in a general way, not only serve as mental stimulants, but help to educate both the eye and the hand ; and which, under the skillful teacher, may do much to awaken a taste or aptness in the pupil, that otherwise might lie dormant for a lifetime.

Under this head may be placed Drawing, both mechanical and free hand, but especially the former. It begets accuracy or precision, with the measurement of lines, angles and the like, and is of use in all mechanic arts. A boy once interested in this, or showing some aptness for it, will soon be disposed to try the saw and plane on his own account. Map drawing and the use of the moulding board serve to fix form and location in the memory, and the latter introduces a sort of industry, that may be carried to any extent that time and circumstance will warrant. The child will learn to mould various architectural as well as natural forms, and thus the eye and hand are being trained, while the ordinary work of the school is going on. Some knowledge of Chemistry and Physics are now desirable in almost any station, but there

is no time for these, except as the teacher sets aside a little time now and then for the purpose, and gives oral instruction in the way of a brief lecture, with simple experiments; and this is recommended in all grammar schools. Elementary work in single entry book-keeping would be a good substitute for some parts of the arithmetic, in the grammar schools, and might well be introduced.—MERIDEN, *Rev. J. H. Chapin, Acting Visitor.*

Instruction desired.—School work, however, can never be tabulated. It is not possible to ascertain it in a string of recitations, cut and dried for the occasion. These are not to be despised; they have their place. They show that the mill has been running, and that grain has been put into the hopper, yet they are ephemeral, and will be forgotten. The unseen work will remain. The question quite naturally arises, viz: What has this and that teacher done toward making the pupil a true man or woman? Has the true art of thinking and reasoning been inculcated? There is a magnetism continually going forth from the instructor, which insensibly moulds and shapes the raw material of childhood and youth, into the coming man or woman. We earnestly desire that the instruction our children receive shall be such as to develop in them all the perfection of which they are capable. In every child there exists the germs of a perfect person, and it is the office of education to favor and direct the growth of these germs. These twelve instructors have done something in this direction, and for this we would thank God and take courage.—GLASTONBURY, *Rev. A. Gardner, Acting Visitor.*

Language, Method of Teaching.—The language training has received an impulse from connecting it with a succession of lessons upon a subject which seems to possess great interest to most of the children. A series of simple experiments with the *candle-flame*, taken from a book especially prepared for the purpose, by Prof. Morrill, of our State Normal School, has been given by Miss Clara Behrisch, who has had charge of these lessons in all the rooms containing classes from the third to the eighth. These lessons have been given once each week since the beginning of the winter term in January. Especial effort is made to arouse the interest of the pupils, and so gain their closest attention. The experiment in all its minute particulars is wrought in their sight, and they are asked to describe it orally with accuracy and fullness. If any particular is omitted in the description, the experiment is again performed, and without any verbal suggestions from the teacher, they are asked to supply the omitted particular. If any improper expression is made, their attention is called to it, and they are led to make the description grammatical as well as complete. By these lessons a habit of close observation is cultivated, a knowledge of some of the simplest facts of natural science not often apprehended by those deprived of the higher education is received, power to compare, contrast and draw conclusions is developed, and the faculty of clear and exact expression

is effectively trained. This work is followed up by the regular teacher requiring each pupil to write out in full, on some succeeding day, the description that has been given orally, paying attention to accuracy of statement, grammatical form, spelling and punctuation. It is confidently believed that our language work has never before been so good. The children know something definitely, and they enjoy telling and writing it. Teachers can hold them to a greater degree of accuracy in compositions, and can make the training more thorough.—NORWICH, CENTRAL DISTRICT, *N. L. Bishop, Supt.*

Libraries, Rules and Regulations for Management of District also of Maps, Charts and Apparatus.—The Acting Principal of the High School, and those of all the district schools of the town of Hartford, shall be *custodians* of all books, etc., which do now, or may at any future time, belong to the libraries of these schools and districts respectively; see that they are carefully used by those who are authorized to consult them, and are not unnecessarily damaged or lost. They shall, in like manner, be custodians of such books, etc., belonging to any one of the district libraries, placed in their care, as may at any time be put in any primary or branch school or schools, connected with their respective districts. The same supervision and control shall be exercised in regard to other school district libraries, etc., by the chairmen, respectively, of the remaining school districts of the town.

The use of books, etc., belonging to the schools and school district libraries, hereinbefore named and referred to, shall be restricted and confined to the teachers of said schools, and they shall be used for the purpose of illustration and description, or for the purpose of obtaining more extended information concerning the subjects taught than the text-books in use afford.

The more advanced pupils may, however, have limited access to the libraries of the schools they attend, for special purposes, at the discretion of the respective custodians.

Each district and branch school-house wherein the books, etc., belonging to any of the before-named schools, and libraries are deposited—and the same shall apply to the High School—shall be furnished with a suitable case, or cases, having locks and keys, in which books and apparatus, of whatever kind, owned and used by the same, shall be kept when not in immediate use, and always be deposited therein at night, except as hereinafter provided, the door securely locked, and the key deposited in a safe place by the acting Principal or teacher of the school. Maps and charts, when too large, and put up in a way to make it impossible to preserve them when not in use, as above indicated, may be securely attached to the walls of the apartments in which they are used, where they will best subserve the purposes for which they are designed. Valuable philosophical, chemical and other apparatus, must be so used and secured as not to be damaged by dust, moisture, or other deleterious agencies.

Every district having a school library, maps, charts, etc., any or all these—and the same shall apply to the High school—is hereby required to keep a suitable book, wherein shall be recorded the names or titles of all such books, maps, charts, or school apparatus of whatever kind, as may belong thereto, together with the date of their purchase; and whenever any of them shall be destroyed or lost, the fact shall be entered therein, and also the date of the record or entry. (This book shall always be open to the inspection of the members of the Board of School Visitors.)

Inasmuch as the books, etc., belonging to the several school district libraries, and the High School, have been purchased and are intended to be used for reference and illustration chiefly, it is to be understood and required that they be consulted in the school buildings to which they respectively belong.

The teachers may, however, in special cases, with the consent of the custodians of the several libraries, but not otherwise, take books only from the library of the district or school in which, for the time, they may be employed; to be retained so long as, in the judgment of the custodian, it may be deemed expedient—due reference being had to the time for which they may be needed for the purpose hereinbefore indicated. In all cases, the name of the person taking a volume from the building in which it has been lawfully placed, shall be entered in a book kept for the purpose, by the custodian, or some suitable person appointed by him; likewise the date at which it was taken and returned.

This book shall also be open at all times to the inspection of the members of the Board of School Visitors.

A copy of the foregoing Rules and Regulations, to which shall be appended sections one and two of the laws relating to education, referring to school libraries which follow, shall always occupy a conspicuous place in every book or other case, wherein are deposited books, or other property hereinbefore referred to, belonging to the High School, or to either of the school districts of the town of Hartford.—HARTFORD, *W. W. Hyde, Acting Visitor.*

Manual Training, Scheme of Lessons in.—Each tool when it is first used, is described, the different parts named, and the way to hold and use it explained. After the boy has learned how to use a tool he is shown how to sharpen it on the oil stone, and is required to keep it in good order.

LESSON I.—*Hammer.*

1. Exercises in striking a block of wood with hammer, to show wrist, elbow and shoulder movements, and to learn to strike "square." 2. Exercises in driving nails of different sizes, perpendicularly, and in drawing them. 3. Exercises in nailing two boards, $\frac{3}{4}$ in. thick, together, with nails of different sizes, driven obliquely, and in drawing them. *Chisel and Try Square.*—4. Take board 6 in. square, mark out the corners square, with try square and lead pencil; cut them out perpendicularly, with 1 in. firmer chisel. 5. Take board 6 in. square, round the corners with 1 in. firmer chisel, cutting perpendicularly; prove with try square.

LESSON II.—*Chisel to line.*

1. Take piece 12 in. long, $1\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick, and mark with rule and compass a pointed arch, at one end, and a round arch at the other end; shape out with 1 in. firmer chisel, cutting with the grain from sides to center of arch. *Halving*.—2. Take two pieces 6 in. long, $2\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick, and halve them together, using rule, try square, single gauge, scratch awl, back saw, $1\frac{1}{2}$ in. firmer chisel, and cutting board. *Always use cutting board, to save cutting the bench.* *Half Dovetail*.—3. Make a half dovetail, with one piece 5 in. long, $1\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick, and one 4 in. long, $1\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick, using same tools as in 2, except $\frac{1}{2}$ in. chisel instead of $1\frac{1}{2}$ in.

LESSON III.—*End Mortise and Tenon.*

1. Take piece 5 in. long, $1\frac{1}{2}$ in. square, and form mortise in one end; take piece same size and form tenon at one end; using rule, try square, scratch awl, mortise gauge, back saw, $\frac{3}{8}$ in. chisel and bench vise. *Boring*.—2. Take piece 3 in. long, $1\frac{1}{2}$ in. square, center the sides and ends with single gauge, put in the vise, and bore half way through with $\frac{1}{4}$ in. bit; reverse, and bore from the other end. 3 Repeat the above, using $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., and $\frac{7}{8}$ in. bits.

LESSON IV.—*Sawing Square.*

1. Take piece 12 in. long, $1\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick, mark two sides 1 in. from end, with try square and scratch awl, and saw off evenly. 2. Repeat above, sawing off piece $\frac{7}{8}$ in., $\frac{3}{4}$ in., $\frac{1}{2}$ in., $\frac{3}{8}$ in., $\frac{1}{4}$ in., and $\frac{1}{8}$ in. *Through Dovetail*.—3. Take one piece 4 in. long, $1\frac{1}{2}$ in. square, and one piece 3 in. long, $1\frac{1}{2}$ in. square, and make through dovetail. Using $\frac{1}{2}$ in. chisel for cutting.

LESSON V.—*Jack Plane.*

1. Take piece 18 in. long, 12 in. wide, $1\frac{1}{2}$ in. thick, place on bench, flat side down, end firmly against bench hub, and plane off a few shavings with jack plane, as set. 2. Take the plane apart, naming its parts; put it together and practice setting it, comparing the shavings, until it is set correctly. 3. Take piece 6 in. square, $\frac{3}{4}$ in. thick, mark off the corners, forming an octagon; using rule, compass, and scratch awl. Saw off corners, leaving line, and smooth edges with block plane. *Cross Cut Saw*.—4. Take board 8 ft. long, 6 in. wide, $\frac{3}{8}$ in. thick, lay off a line, with try square and lead pencil, 6 in. from the end, and saw off leaving line. 5. Repeat above, sawing on the line.

LESSON VI.—*Grooving.*

1. Take piece 3 in. long, 3 in. wide, $\frac{7}{8}$ in. thick, and make a groove, $1\frac{1}{2}$ in. wide, $\frac{1}{2}$ in. deep, through the center, across the grain, using rule, mortise gauge, try square, scratch awl, back saw, bench hook, $\frac{3}{8}$ in. firmer chisel, bench vise and cutting board. 2. Take piece 4 in. long, 3 in. wide, $\frac{7}{8}$ in. thick, cut a tenon on one end to fit groove; using same tool as in 1. 3. Round the ends of both pieces with firmer chisel, using try square to prove correctness of work. 4. Put together and test with try square. *Ripping Saw*.—5. Take board 8 ft. long, 12 in. wide, $\frac{3}{4}$ inch thick, mark off with single gauge a strip 2 in. wide; put it on the horse and saw to line, then put the board in the bench vise, one end resting on the bench pin; plane with jack plane, and true up with jointer, using try square to prove it. 6. Repeat above, sawing on the line.

LESSON VII.—*Framing.*

1. Saw from stock a strip 2 ft. long, 1 in. wide, $\frac{7}{8}$ in. thick, using single gauge and rip saw. 2. Square up with fore plane, trying plane, and try square. 3. Saw off with back saw, piece 12 in. long, for stile, and one 5 in. long, for rail. 4. Form mortise in stile, and tenon on rail, using bench vise, back saw, bench hook, 1 in. firmer chisel, $\frac{3}{8}$ in. mortise chisel, and mallet.

LESSON VIII.—*Framing (completed.)*

1. Drive together the pieces prepared in the last lesson and smooth face with block plane. *Halving.*—2. Saw from stock, piece 40 in. long, 1 in. wide, $\frac{7}{8}$ in. thick, using rip saw. 3. Square it up with jack plane, trying plane, and try square, gauging to thickness and width. 4. Cut off two pieces 12 in. long, and two 8 in. long, and halve corners together, making a frame with ends projecting one inch.

LESSON IX.—*Halving (completed.)*

1. Round the ends of the pieces prepared in the previous lesson, using compass, firmer chisel, and wood file. 2. Put together and smooth up with block plane. *Sawing and Planing.*—3. Saw from stock, piece 12 in. long, 2 in. square. 4. Square it and plane all sides. 5. Cut from stock piece 4 in. long, 4 in. wide, $\frac{7}{8}$ in. thick. 6. Square it and plane all sides.

LESSON X.—*Gauging.*

1. Center, with marking gauge, on all sides, from end to end, the 12 in. piece prepared in last lesson. 2. Square off a line all round, $\frac{3}{4}$ in. from end, then on that line, point off $\frac{3}{8}$ in. on each side of center, on all four sides; from the points thus obtained, draw lines obliquely to the corners at the other end; then draw lines, from the said points, on the line squared off, to the center of the top. *Beveling.*—3. Bevel with draw knife, and plane true, using bevel to prove the work. *Chamfering.*—4. Chamfer the top to a point, as marked out.

LESSON XI.—*Doweling.*

1. Draw a line through the center of the base of the column, made in the last lesson, point off $\frac{3}{8}$ in. on each side of center. Make centers with scratch awl, to bore from, and bore holes perpendicularly 1 in. deep, with $\frac{1}{4}$ in. twist bit. 2. Glue in $\frac{1}{4}$ in. dowels; ends to project $\frac{5}{8}$ in. 3. Center the piece 4 in. square, prepared in Lesson IX—4. Measure $\frac{3}{8}$ in. on each side, bore perpendicularly, holes $\frac{3}{8}$ in. deep. 4. Set gauge $\frac{3}{8}$ in. and gauge round the top and sides, chamfer off, using 1 in. firmer chisel, true up with block plane and try square. 5. Glue together, making column and plinth.

LESSON XII.—*Draw Knife. Planing to line.*

1. Saw from stock, strip 12 in. long, 2 in. square. 2. Square up sides and ends. 3. Gauge off $\frac{3}{8}$ in. from all the corners, put in bench vise, take off corners with draw knife and plane to line.

LESSON XIII.—*Mortising.*

1. Saw from stock, two pieces 12 in. long, $1\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick for stiles, and two pieces 8 in. long, $1\frac{1}{2}$ in. wide, $\frac{7}{8}$ in. thick for rails. 2. Square them up. 3. Form mortise in stiles, and saw tenon in rails. 4. Mortise to be two-thirds the thickness of the stile, rails to enter stiles $\frac{3}{4}$ in. from the end, and tenons to project $\frac{5}{8}$ in.

LESSON XIV.—*Mortising (completed.)*

1. Finish up and fit mortise and tenon, commenced in last lesson, with chisel. 2. Round the ends of tenons. 3. Drive together, and plane off back and front.

LESSON XV.—*Glue Joint.*

1. Saw from stock, two pieces 3 ft. long, 3 in. wide, $\frac{7}{8}$ in. thick. 2. Plane the edges square, with jack plane, trying plane, and try square. 3. Joint together.

LESSON XVI.—*Beveling.*

1. Saw from stock, two pieces 3 ft. long, 3 in. wide, $\frac{1}{4}$ in. thick.
2. Square them up. 3. Mark on edge with bevel (set to templet 45°), and plane to bevel with jack plane, fore plane, and trying plane.

LESSON XVII.—*Blind or Mitre Mortise.*

1. Saw from stock, two pieces 6 in. long, 2 in. wide, $\frac{1}{4}$ in. thick.
2. Square them up. 3. Make mitre mortise and tenon, using try square, scratch awl, mortise gauge, back saw, $\frac{3}{8}$ in. mortise chisel, and bevel.
4. Put the mortised piece in mitre board and plane true.

LESSON XVIII.—*Blind or Mitre Mortise (completed).*

1. Drive together the pieces made in last lesson. 2. Level off faces and ends with block plane. 3. Round the ends to finish.

LESSON XIX.—*Mitreing.*

1. Saw from stock, strip 18 in. long, 3 in wide, $\frac{1}{4}$ in. thick. 2. Smooth it up and square it. 3. Cut into four pieces, 4 in. long. 4. Mark corners of each piece on flat side with scratch awl and bevel (set to templet 45°). 5. Put in mitre box and saw to line. 6. Put in mitre board and true up. 7. Fit together and test with try square.

LESSON XX.—*Mitreing (completed).*

1. Glue together the pieces made in the last lesson, and key it, making a frame. *Dovetail.*—2. Saw from stock, two pieces 4 in. long, 3 in. wide, $\frac{1}{4}$ in. thick. 3. Square them up. 4. Mark for dovetail and saw out.

LESSON XXI.—*Dovetail (completed).*

1. Chisel out and fit the pieces made in last lesson. 2. Drive them together and level off with block plane. 3. Round the ends.

LESSON XXII.—*Framing and Wedging.*

1. Saw from stock one piece 6 in. long, $1\frac{1}{4}$ in. square, and one piece 4 in. long, $1\frac{1}{4}$ in. square. 2. Square them up. 3. Form mortise $\frac{3}{8}$ in. \times $1\frac{1}{4}$ in. in long piece, using mortise gauge and $\frac{3}{8}$ in. mortise chisel. 4. Form tenon, on short piece, to fit mortise, and to project one inch. 5. Cut hole in tenon, beveled on one side, for wedge, using $\frac{1}{4}$ in. chisel. 6. Drive together and wedge.

LESSON XXIII.—*Squaring to size.*

1. Saw strip $1\frac{1}{2}$ in. wide from $1\frac{1}{2}$ in. plank. 2. Gauge to size. 3. Plane with jack plane, and true up with jointer, and try square.

LESSON XXIV.—*Planing to width.*

1. Take $\frac{1}{2}$ in. board about 6 ft. long, 8 or 10 in. wide, and saw off strip $4\frac{1}{2}$ in. wide. 2. Plane with jointer to $4\frac{1}{4}$ in. 3. Saw off two pieces 8 in. long for sides, and two pieces $4\frac{1}{2}$ in. long for ends of a box. 4. Square edges and smooth faces with block plane.

LESSON XXV.—*Dovetail.*

1. Set single gauge to $\frac{9}{16}$ in., and square around the ends of pieces prepared in last lesson. 2. Mark for dovetails. 3. Form dovetails, using $\frac{1}{2}$ in. and $\frac{1}{4}$ in. chisel, and cutting from both sides.

LESSON XXVI.—*Dovetail (completed).*

1. Finish up and fit dovetails. 2. Glue together and clamp with hand screws, taking care to bring the joints up, and to keep the box square, using try square at every corner.

LESSON XXVII.—*Soothing and Sand-papering.*

1. Saw out two pieces $5\frac{1}{2}$ in. \times 9 in. for top and bottom of box.
 2. Square up edges and smooth faces. 3. Smooth sides and ends of box with block plane. 4. Sand-paper, clean and smooth. 5. Level off top and bottom edges.

LESSON XXVIII.—*Nailing.*

1. Nail on top and bottom pieces, with $1\frac{1}{4}$ in. No. 16 wire nails, being careful to drive the nails straight and in the center of thickness of sides and ends. *Molding.*—2. Get piece 40 in. long, $\frac{7}{8}$ in. square, from stock. 3. Square to $\frac{3}{8}$ in., and quarter round with jack plane; making a molding for bottom of box. 4. Get from stock, piece 40 in. long, $\frac{1}{2}$ in. square. 5. Square to $\frac{3}{8}$ in., and quarter round; making a molding for top of box.

LESSON XXIX.—*Mitreing.*

1. Saw molding, made in last lesson, in lengths to fit box (mitreing the corners in mitre box), and glue them on the box.

LESSON XXX.—*Beveling.*

1. Plane the edges of the top and bottom of box with block plane, to an equal projection all around. 2. Mark the top, with single gauge, 1 in. on and $\frac{1}{4}$ in. down. 3. Bevel with $1\frac{1}{4}$ in. chisel and finish with block plane, and sand-paper block.

LESSON XXXI.—*Chiseling.*

Cut a hole exactly in center of top, $1\frac{3}{4}$ in. long, $\frac{1}{8}$ in. wide. Using $\frac{1}{8}$ in. chisel.

LESSON XXXII.

Finish up the box, with moldings, etc., according to individual fancy.—NEW HAVEN, S. T. Dutton, *Superintendent.*

Neatness.—We are glad to report an increased interest in the care of the school rooms and out-buildings and in the planting of trees in the yards. We cannot speak in too high terms of the scrupulous cleanliness of some of our school rooms and school yards. The school house in No. 11 is very poor—not what the pupils in that district are worthy of—but internally it is as clean as it can be. We believe we can report but one who is careless in this respect.

Put the obligation to clean school rooms and yards upon the town or district, or where you will, no one *can* properly do it except the teacher. The district may instruct the district committee and he may employ a janitor, still if the teacher is careless or lazy in this respect you need not expect a neat and tidy appearance.—THOMPSON, *Stephen Ballard, Secretary.*

Order, Secured by Busy Work.—Not many years ago it was required of the little ones, when not occupied with dull and monotonous efforts to repeat words, or to spell them, that they should sit with folded hands, perfectly still. This unnatural inactivity was benumbing to the mental powers; and, with the bright and active ones, was sure to result, either in mischievousness, or a strong aversion to school life. The endeavor now is to keep the children constantly employed; at short and frequent exercises be-

fore the teacher, when the closest attention is necessary, and for the remainder of the time, with quiet amusements that are instructive. Among these are, arranging blocks and splints into figures and forms, copying pictures or diagrams, figures, letters, words, etc., which are to be presented to the teacher for her approval. The variety of amusing exercises is endless, and the progressive teacher, by giving attention, will easily become familiar with all that she will need to use.—NEW BRITAIN, *J. N. Bartlett, Supt.*

Parent and Teacher.—Cases of disagreement between parent and teacher are frequently brought to the notice of the School Visitors. It is not unusual to find on the part of both a lamentable ignorance of the reciprocal rights and duties which grow out of their relation to each other. A few words are offered on this subject to serve both as a statement of what is legally sustainable, and as defining the position of the School Visitors, so that, in future, the teachers, at least, can understand in advance somewhat as to the way the School Visitors will look at cases which may arise.

Some, usually either very young, or very old, teachers, seem to think that by virtue of their position they are endued with a kind of omnipotence. It is for them to command; it is for their scholars to obey. They are to direct as to the studies to be pursued by the pupil, his physical wants, the means of discipline to be employed.

On the other hand some parents seem to think that each parent in the district ought to have his particular notions as to all these things followed in all respects. They resent any departure from the plans they lay down and accept no testimony as to what is done or not done except that of their own children.

Sometimes one is in the right and sometimes the other, and sometimes, though it may seem a paradox, both are in the right. And yet too strong emphasis cannot be laid on the fact that, no matter what the legal *status* of the parties may be, if the parent and the teacher disagree, the child must suffer. Lack of coöperation breeds indifference; disagreement is the sure forerunner of death to all interest and progress.

An example or two will make the meaning plain. The matter comes up as frequently as any in this way. A parent thinks that the physical well-being of his child requires that he shall be allowed to leave the room frequently. This, of course, is to a certain degree disturbing to the order of the school-room. The child informs the teacher that it is necessary that he should leave the room frequently and that his parents desire it; often the request is disregarded and sometimes roughly denied. Substantially this answer has been given: "I am teaching this school, I am the only judge as to what is necessary for you in this respect, and you will leave the room when I permit you, and not otherwise."

The teacher may believe in corporal punishment as a means of discipline; the parent may not believe in it at all, but is obliged to submit to the teacher's ruling or take his children from school. The teacher scoffs at the idea that the parents' wishes are to be regarded in the matter. The child has been disobedient, or unruly, or idle, and must be thrashed: "That is the best course to be pursued and I will not admit that any one has anything to say about it but myself." In the same way the teacher asserts his authority in regard to what studies shall be taught and the manner of teaching them.

On the other hand, parents have been known to serve notice on the teacher that John must occupy a certain seat and Lucy must not be subject to the rule forbidding whispering; Sarah finds arithmetic hard and is to be excused from recitation in it; Samuel is to devote all his time to writing and arithmetic, for he is to be a clerk, and so on.

Now, by the mere act of sending him to school the parent surrenders no right in or to his child. The pupil does not occupy the position of servant, apprentice, or slave to the teacher, and is neither his child nor his ward. The circumstances which surround those relations, whose legal *status* is thoroughly established, are all wanting here. The teacher has legally the powers of neither the parent, the guardian, nor the master.

The teacher only has, and can use, such powers as are delegated to him. He is a kind of trustee of those powers which are conferred upon the parent. In legal phrase he stands *in loco parentis*—in the place of the parent—to his pupils.

It being inconvenient and impossible for parents to teach their children at home they employ agents—the Committee and School Visitors—to find some one who shall perform this duty for them. The teacher is a superior kind of servant of the parents, acting for them, and exercising the authority conferred upon him by them through these agents.*

The teacher, then, does not possess the original and full powers of the parent, he only receives them in trust for limited portions of time. Now, it is a well-known doctrine that the utmost diligence is required of a trustee in the performance of his duty. And so it is with the teacher. It is not sufficient for the teacher to plead that he acts as his judgment would advise him to act were he the parent of his pupils, or that he is upheld by some one or more of the parents who are his patrons. His only justification is this, that he has acted as a parent governed by noble instincts, by a high ideal of duty, by humane sensibilities, and by a cultivated intelligence, would act.

In the light of what has been said: The parent does not lose control of his child. He has a right to follow and advise, and, to a certain extent, direct as to the course which he shall pursue. He cannot break up the order of the school in any particular. If

* This reasoning is claimed to be correct for all practical purposes. I am aware that the subject presents ample opportunity to crack metaphysical nuts.

the branches of study and the order in which they shall be taken are prescribed by competent authority—his own agents, by the way—he cannot require that his child shall pursue branches not laid down in the course, nor in a different order; he can require that his child shall pursue only a portion of them.

If he wishes his child to come home at a certain hour of the day on a special occasion, or on all days, no power rests in the teacher to prevent the child from so doing whether the reason be good or bad. The check to the abuse of his privilege is this, that his power as parent is conferred and upheld by law, and even so will the law abate any abuse of this power. If he keeps the child out of school so much as to constitute a denial of school privileges, the law provides a remedy, and the child will also come under the rules made by competent authority, by which such absences are regulated, resulting, possibly, in his suspension from school or the loss of certain school privileges.

Under the common law the parent has full right to discipline and control his children as his judgment dictates, and the law will not interfere with him in doing this unless he commits a crime or offends against humanity. As the parent may punish corporally, so may the teacher if not forbidden by those in authority over him—but with this marked difference, the teacher must be able to show every time that such punishment is necessary and administered reasonably and moderately.

The present feeling against corporal punishment is not at all doubtful. Such punishment is coming more and more to be regarded as brutal and degrading in its effects both upon the one administering and upon the one suffering the infliction.

It is seldom that a child will receive such punishment, especially from a stranger, without becoming doubly defiant and hardened. Usually this spirit arouses a counter spirit of anger in the teacher. The affair, instead of being one of punishment with a laudable end in view, degenerates into a contest of will and endurance between the teacher and pupil. If it takes place in the school-room, the stronger-minded scholars are either hardened or disgusted; the more sensitive are rendered hysterical, and sometimes get over the effects only at the lapse of a long interval of time. The pupil is injured in body and mind and soul; the teacher's influence for good is destroyed. This may be taken as descriptive of a severe case, but it is only a question of the degree of demoralization, the degree of injury received, the degree of loss of influence.

Teachers who are obliged to resort to this means of securing proper discipline must be regarded as unscientific and ignorant of the details of their profession. They must be considered as having mistaken their calling.

There are, perhaps, instances where this kind of punishment is necessary,—instances where a short, sharp lesson needs to be taught and received effectually and completely. But such instances are rare, and they are very few of them in which a more ju-

ditions treatment will not effect better and more permanent results.

Teachers are rapidly finding out that occupation is a deadly foe to disorder. They solve the question of discipline by securing the interest of their scholars in what they do and then giving them plenty to do.

The theoretical or legal view of the matter ought, then, to be clear without further elucidation. The parent has a right to advise as to the instruction and government of his children in school and can require of the teacher that he exercise the powers conferred upon him in the most careful and diligent manner. On the other hand the teacher can prevent interference with the details of the work, and in them can be reached only by rules passed by competent authority.

A single instance, likely enough to occur, is the completest answer to those who hold a different view. Given on one side parents of age, discretion, sound judgment, and experience, trained through many years, who have, possibly, brought up a large family of children wisely and well; given on the other side the teacher, possibly a mere stripling in his teens, whose own bringing up may have been good or bad, whose education may be very little, if any, in advance of some of his pupils, whose only ideas of discipline and study have been gathered from his own narrow, and possibly vicious, experience.—BRISTOL, *J. J. Jennings, Acting Visitor.*

Parents, Duty of.—I can report progress in a great many of our schools, but I am sorry to say that some of them have gone the other way. While there has been a vast improvement in North Cos Cob school, there has been a great falling off in the school at Cos Cob. The reason for it is because the teachers have not had the cordial support and coöperation to make their school a success. I claim, no matter how good the teachers, they cannot make their schools a success without the parents take an interest in the school. I believe it is the parents' duty, as well as the district committee, to visit the schools as often as they can make it convenient to do so. By so doing they show the children that they are interested in their welfare.

My observations have caused me to recognize the important fact that the schools might be very much better, and the pupils make greater progress, if the parents would give more attention to, and visit them oftener; also be careful to have their children attend with more regularity.—GREENWICH, *Acting Visitor.*

Parents, Duty of.—Parents can aid greatly in this work. They surely ought to feel deeply the importance of their children obtaining a good education, when their preparation for life's responsibilities, for usefulness, respectability and happiness in their mature years so greatly depend upon it. Certainly they do love their children and desire for them a good position and suc-

cess in life. Ignorance will only prepare them for dishonor and ill-success. Ignorance will be their portion, unless they attend school steadily. They can learn but little by rare or inconstant attendance. The parents therefore who do not secure a regular attendance on school by their children, are doing them a great injury, depriving them of great advantages, and preparing them to be unfitted for their active life. They can, if they only will, do a great deal towards their children attending school every day.—REDDING, *W. E. Duncomb, A. B. Hill, Rev. W. J. Jennings, Acting Visitors.*

Physical Culture.—This subject does not receive the attention it deserves. The contracted chest, the compressed hand, the unnatural focus, the folded arms and stooping form are too often seen. School life has, necessarily, much that is opposed to the healthy development of a sound body, and for this reason there should be constant vigilance in guarding against evil tendencies. Few are aware of the extent to which the air of the school-room becomes vitiated by being occupied by thirty or forty persons. In the buildings where the means of ventilating are philosophical this evil is very much under control. In others we are half a century behind the age. Much of the headache and nervousness that is charged to the "pressure" and "overwork" of the school room, is due to its impure atmosphere, and a constrained condition of the body which hinders the free and healthy action of the vital organs.

There should be an abundance of pure air, and frequent gymnastic exercises, which, though simple, will afford relief from constraint, and favor both the preservation and the development of the functions.

There is more attention paid to these matters of physical culture in the lower grades than in the higher. Frequent marching, with windows open, and gymnastic exercises in which the movements are indicated to the children by one of their own number, also exercises adapted to singing are found to be very useful, and are much enjoyed by the little ones.—NEW BRITAIN, *J. N. Bartlett, Supt.*

Physiology.—The Legislature has seen fit to pass a law requiring Physiology and Hygiene to be taught as branches of study in our common schools. This law does not affect us in Bristol, particularly, for Physiology has been in our Course of Study for years. But, if the Legislature should pass a law making it a criminal offense for teachers to permit disobedience to the simple laws of health in the school-room, there would be reason to apprehend that the grand jurors would be kept busy, for a time at least. Children with unclean persons or garments should not be allowed in the school-room; there should be little, if any, restriction of legitimate individual recesses; the school-room should be supplied with an abundance of pure air. Teachers often seem to think that ventilation is synonymous with draughts

of air, and thus, in their attempts at ventilation, they produce colds and fevers instead of contributing to health. It is impracticable to do more than to refer to the matter here. Advice will cheerfully be given to those seeking for better things in this respect. Teachers who flagrantly violate these rules of health cannot expect to win the confidence of the school officers.

One other word on this subject may, perhaps, be tolerated. The root of the difficulty is just here: The teacher relies entirely upon her own feelings as a guide, than which none could be more untrustworthy. Perhaps the best remedy would be to place a memorandum on the desk with a reminder to attend to certain things of this sort at sufficiently frequent intervals.—BRISTOL, *J. J. Jennings, Acting Visitor.*

Physiology.—While there seems to be good ground for regretting that this study is to be forced into our schools, and also good reason to doubt whether it will be of any advantage in the direction hoped for by its promoters, yet, if we are to teach it at all, it must be in a systematic and thorough way. The whole subject can easily be made ridiculous, and of no value; but we hope by the exercise of care to make this study, like all others, interesting and profitable to the pupils. It is evident that it will be necessary for teachers to do a great deal of studying on the subject outside of regular hours, and it will be necessary, it seems to me, for the schools to provide themselves with books, suitable for reference at least, in this study. This work is going on in the various districts. It did not seem to me to be the intention of the law, or the proper construction of it, that all teachers who have been engaged in our public schools in the past, and hold certificates entitling them to continue in their positions, should be summoned before the board for an examination in this study. I have therefore confined myself to examining those who hold no certificates, and who desire to teach in our schools for the first time. For this reason, however, teachers should not conclude that they are under no obligation to familiarize themselves with the nature of the subject which they must teach. It certainly would become the duty of the Board to revoke the certificate of a teacher whom they should find incapable of giving the instruction required, to the same extent that it would be their duty to revoke a certificate for inefficiency in any other respect.—HARTFORD, *W. W. Hyde, Acting Visitor.*

Private Schools.—Chapter 146 relates to the attendance of children at private schools, and provides that such attendance shall not be regarded as compliance with the provisions of the laws of the State which require parents and other persons having control of children to cause them to attend school, unless the persons in charge of the school shall make reports to the State Board of Education similar in form to those required from the public schools of the State. This law is of importance, both to the persons having charge of the private schools, and to parents, as the provisions

of the statute which impose a penalty upon parents unless their children are sent to school apply equally to patrons of private schools and of public. It has been difficult for many years to obtain full statistics of private schools, and the method adopted in this statute, while perhaps displeasing to many, is yet one brought about by necessity, in order that the authorities may get more accurate notions as to the amount of schooling which is being given to the children of the State. It is advisable, therefore, that persons coming under the law should govern themselves accordingly, and avoid prosecution to which they will otherwise render themselves liable.—HARTFORD, *W. W. Hyde, Acting Visitor.*

School-rooms, Appearance of.—In closing, allow a word in general. I would suggest that more be done in all the schools by way of beautifying the school rooms. They are not home-like. They should be so. I have noticed that it is the custom in the districts to have the houses cleaned before the fall term of each year. This is well, but it is not enough. The black-boards should be repainted, the stove should be blacked, as also the pipe; but too often the districts seem to be satisfied with old cast-off pipe, and with rusty stoves. To make the rooms attractive and cheerful with pictures and neat furniture will create a better attendance.—GRANBY, *C. C. Campbell, Acting Visitor.*

School-room, How to make it Attractive.—The interior of the school room should also be made attractive by way of pictures, cards and mottoes, collections of curiosities in the shape of minerals, stones, insects, etc., etc.—nothing elaborate or costly, but some which in time may become a cabinet of interest, from the fact that the children themselves have performed it. All these things tend to cultivate the æsthetic as well as the practical, and tone down that which is rough and uncouth, and elevate that which is pure and good.—THOMPSON, *Stephen Ballard, Secretary.*

Schools, More interest in, desired.—We earnestly wish that more practical and helpful interest might be taken in the welfare of the schools, and a greater desire manifested to improve their usefulness. There is no interest to which our taxes are devoted more important than the common school. We might better have poor roads, useful and desirable as good ones are, than poor schools, for poor roads occasion only present inconvenience and discomfort, but poor schools beget irreparable loss of mind and manhood for generations to come. Almost any other interest of the town might better suffer than this. No town can prosper that fails to provide generously and wisely for public schools.

But money alone will not secure good schools. This must be supplemented. A little earnest effort on the part of all interested, from the Selectmen and School Board to the district committee and parents, would quickly give an upward look to the cause of education. No private or selfish interests of any kind should be allowed to rob the schools of their efficiency. In school

matters the interests of the children should be placed foremost.—
CANAAN, *Rev. D. M. Moore, M. H. Dean, Acting Visitors.*

Sewing.—This most valuable branch of instruction has now been introduced in grades IV, V and VI, and about 2500 girls are receiving weekly lessons. With few exceptions the regular teachers have entered heartily into this enterprise and have been ready to give time out of school hours in cutting and preparing work for the children. From their continued interest and coöperation much depends, as the special teacher cannot visit the classes for every lesson, neither can she prepare the work. The deportment and tidiness of several school rooms have visibly improved since sewing was introduced. Not only will the school and home life be elevated by this means, but the character of our school girls will receive an infusion of thrift and industry.

A record kept by the teachers, shows that 3660 garments have been made. Many parents inspected this work while visiting the classes and expressed much satisfaction.—NEW HAVEN, *S. T. Dutton, Superintendent.*

Small Districts, Disadvantages of.—The average attendance in many of the schools is very small, and yet the teacher requires as large, or nearly as large a salary as if the school were larger. But the average attendance being small, the appropriation is small, and good teachers, as a rule, refuse to teach for little or nothing. Thus, although the cost of running these schools is very large in proportion to that of running the larger ones, the scholars are deprived of the advantages of good teaching. In other words, in the small districts the expense is large and the teachers, as a rule, incompetent. It does not follow that the teachers employed in the smallest district are *always* the poorest, although the tendency is in that direction, for a good teacher may be willing to teach in a small school in order to live at home. During the past year several exceptions to the rule were met with. There is one other, and a very serious defect incident to the small schools, viz: it is impossible to classify the children. Every one knows that children studying by themselves cannot make as good progress nor do as thorough work as those who are in classes. The remedy for these defects is obvious. The boundary lines of nearly all the districts should be thoroughly looked over and changed, where necessary, in such a manner as to make the number of children in each a proper one. I would suggest that a committee, composed of men from the different parts of the town, be appointed by the Board of School Visitors, or in some other way, who shall change the district boundaries as they find necessary.—SHARON, *Dr. C. W. Bassett, Acting Visitor.*

Success, Obstacles to.—Two of these great obstacles are irregularity of attendance and the almost utter lack of coöperation and sympathy on the part of the parents and guardians of the pupils

with the teachers ; but instead, are rather prone to censure, especially in matters of discipline, without first making a careful investigation of facts. All can readily see, therefore, that a teacher to be fairly successful must have rare tact and angelic patience, and it is with great pleasure that I can report that there are several such in town ; and that their labors are appreciated is evidenced by their re-engagement for the ensuing year.—KILLINGLY, *Anthony Ames, Secretary.*

Supervision.—Much more thorough supervision of the schools has been secured by making the Principal of the Academy an Acting School Visitor, delegating to him the practical supervision of all the schools ; and we commend his faithful and efficient work.—ESSEX, *E. W. Wetmore, Chairman.*

Supervision.—Of the means employed to increase the efficiency of public schools none is more important than skilled supervision. The oversight of a superintendent, in a city as large as New Haven can only be of a general character. His visits are of necessity infrequent and brief and, although he may become fully conscious of defects in teaching and management, he must look to some one else for their correction.

Our schools could never have reached their present high rank had it not been for the careful supervision of the principals, of all the school rooms in their several sub-districts. The quiet, satisfactory and thorough manner in which the schools are conducted from year to year is a sufficient proof of the excellence of the system. The only possible danger is that principals may suffer their time and energies to be too much absorbed by clerical duties and by sundry details that are always claiming attention. To be much in the school rooms, to bring judgment and experience to bear in weighing the merits of the actual teaching, and to offer suggestions and criticism without reserve, as opportunity requires,—these constitute the essential elements of that immediate oversight which principals are expected to give. To help the weaker and less talented teachers to become as good as the average, and to deal frankly with all that savors of incompetency, is the best service that a supervisor can render his patrons. He will also endeavor to secure a full and punctual attendance of the pupils in his district. He will see that the programmes are so arranged that the several subjects of study receive due attention. He will conduct such examinations, oral and written, as are needed to keep him well informed concerning the advancement of the several classes.

As nearly all vacancies are filled by graduates of the Training Schools, it becomes necessary that principals see that these novitiates fashion their work according to those educational principles that lie at the base of all good teaching. No effort has been spared in the Training Schools to unfold sound theories, to impart a spirit of study and investigation, to secure skill in right methods, and at the same time, to give such freedom as shall afford full scope

to that best of all qualities, *common sense*. Principals are expected to visit the Training Schools, and those in charge of the training are in the habit of visiting the other schools. Thus some progress has been made toward a common agreement as to the kind and amount of work that is feasible in the several grades. The new course of study, soon to be published, made up as it is from the united experience of principals and teachers, will prove an important factor in securing thorough supervision.

With our present facilities for school work in New Haven there is no excuse for inferior results in any department. The supervising eye should be keen enough, and the supervising mind clear enough to discover and root out all those erratic tendencies that are liable to fritter away school time without arriving at wholesome results.

As I remarked at the outset, the principal's highest and best office is *to oversee and direct the teaching*. He who is the patient and thoughtful listener in one of his school rooms for a full hour, and who then gives the teacher of that room a frank and discriminating expression of opinion concerning what he has seen and heard, has rendered the highest professional service of which he is capable.

Anything short of this does not meet the exigency and cannot be recognized as true supervision.

Of other matters pertaining to school management it is not necessary to speak. Many schools have reached almost perfection in details, and a high average is the rule.—NEW HAVEN, *S. T. Dutton, Superintendent*.

Supervision.—The law requires the acting visitors to visit the "schools at least twice during each term, once within four weeks after the opening, and again during the four weeks preceding the close; at which visit the school house and outbuildings, school register and library, shall be examined, and the studies, discipline, mode of teaching, and general condition of the school investigated. Half a day shall be spent in each school so visited unless otherwise directed by the Board."—Pub. Act 1884, p. 346.

Some of these duties can be easily performed by any intelligent, fairly educated person; for example, the formal visiting, examination of registers, library and buildings.

But an investigation of the studies, discipline, and mode of teaching requires the skill of an experienced superintendent. The investigation will have little practical value, unless made for the purpose of improving the condition of the schools. The acting visitors should be able not merely to see defects, but to correct and prevent them. Your present acting visitors have neither the qualifications nor the time necessary to carry out improvements in studies, discipline and methods.

One of the Acting Visitors has no time whatever to visit the schools. Another visits in the first district; another in the second

district : and another in the outside districts. This division of duties is unavoidable because no one of us has time to visit all the schools. But good results do not come from such visiting. The consequences are that the interest of the visitor is limited to his district ; his opportunity to compare the schools with each other is cut off ; different standards of judgment as to the condition of the schools are held ; unity of purpose among the schools, teachers and committees is wanting.

Twice a term the statute provides a visitor shall visit and spend half a day in each school. A strict compliance with this law—which is never pretended—would take twenty-eight days of a single visitor's time to go the rounds in one term, or about eighty-four days in a school year, more than four school months of twenty days each. The legal compensation for this period of service at two dollars per day, would be one hundred and sixty-eight dollars, without any allowance for traveling expenses. It is no venture to say that no business or professional man could afford to undertake such a piece of work.

It follows that there should be but one Acting School Visitor, who should be an expert supervisor and give his undivided attention to the schools. He could be clothed with sufficient authority by the Board to help the teachers in their work, hearing classes and conducting other exercises. He would have the time and the skill to illustrate to inexperienced teachers the best methods of instruction and train them for their responsible duties. Thus the Acting Visitor would no longer appear to the teachers like a spy, or a detective, but as a co-worker jointly with them responsible for the success of the schools. To the pupils he would cease to be "the man who comes around asking questions," and would appear as a friend interested in their progress and capable of teaching them.—WINDHAM, *John D. Wheeler, M. L. Tryon, George A. Conant, Rev. S. R. Free, Acting Visitors.*

Supplementary Reading.—A year ago the matter of supplementary reading was spoken of. A book has been selected for that purpose and used in one of the intermediate grades. The books have been kept at the teacher's desk and only distributed for recitation, thus making it impossible for the children to read ahead. The success of the plan has been undoubted. Constant drill and long familiarity had fairly drained the life out of the regular readers. The new supplementary book brought in life and interest. Visiting the school after a term's use of the book, I was amazed at the progress manifest. The children read with life, with intelligence, with clear expression and enunciation,—in short, they read, not with elocutionary straining, but as children ought to read. Of course this good result is partly due to the teacher's excellent work, and ample praise should be given to her ; but such results could not have been attained without such a book.—FARMINGTON, *Rev. Chas. S. Lane, Acting Visitor.*

Supplementary reading-books.—It is not the policy of the Board to make any changes in the text-books that are not absolutely necessary—and the few changes made have been at such times as not to cause the pupil additional expense. Difficulty has been experienced in finding suitable supplementary reading books in some of the grades—much of the reading has become hackneyed by long usage, and possesses no interest for the pupil. The Committee on Schools and Teachers have endeavored to meet the needs of the schools by obtaining, at a small cost, some good periodical literature.—MIDDLETOWN CITY, *Rev. C. A. Piddock, Acting Visitor.*

Tardiness and Irregularity.—The registers, of a few districts, bear the signs of these destructive influences to successful study. No pupil, habitually tardy, receives the instruction he is entitled to. His influence on the whole school is bad. He is a discordant element and should be eliminated. Irregularity is not a less evil. We hope those having children in charge will recognize this and join us in our attempts to obviate it. It is presumed that all children under the age of fourteen years shall have attended some school at least sixty full days in the year. If the registers show them tardy one-half of the time, in a term of three months, which is all they pretend to attend, it is obvious that the intent of the law is defeated. We are sorry to feel obliged to report instances of this kind, and hope these friendly intimations given in the interest of children the state is bound to give an opportunity to acquire an education, may accomplish what we design—less tardiness and irregularity.—LEBANON, *Isaac Gillette, Secretary.*

Teachers, Change of.—Too frequent a change of teachers has been a misfortune to some of our schools. One had three new teachers the last year, and two in the first month of this year; another had two. We speak of this not to cast blame on the Districts or their Committees, as the changes seemed unavoidable on their part; but to suggest how great a loss is thus sustained. A new teacher must necessarily spend some time in ascertaining the standing and wants of the scholars, and getting again under headway. And so every such change involves inevitable loss. Happy is that District which is able to secure a good teacher, and retain her, term after term and year after year, so that the school work can go on uninterruptedly, systematically and progressively.—MIDDLEFIELD, *Rev. A. C. Denison, Acting Visitor.*

Teacher, The Ideal.—The ideal teacher, thoroughly qualified for her profession, who is an enthusiast herself and capable of inspiring her pupils with enthusiasm, who does not confine herself to the mere routine work of text-book recitation, but stamps her own personality upon the plastic mind and heart of the youth under her charge is not easily obtained. The board has sought to secure such instructors for our schools. Of course, success has not been the invariable rule, yet we are confident that Dan-

bury has a large number of competent and devoted teachers in charge of the schools.—DANBURY, *Wm. F. Taylor, H. B. Scott, Rev. J. A. Freeman, J. E. Walsh, P. H. Lynch, M.D., Rev. A. C. Hubbard, School Visitors.*

Teachers, Need of Trained.—Teaching is an art, and too much stress cannot be laid upon the importance of having only the best teachers in our schools. Experience has shown that the most successful teachers are those who have had previous training for the work. It is true that many succeed without this training, yet their experience is gained at the cost of the pupils.—PUTNAM, *Eric H. Johnson, Omer La Rue, Acting Visitors.*

Teachers, Need of Trained.—It would be pleasant to report a steady improvement in our public schools from year to year, but in our opinion the schools during the year just completed have been rather below than above those of the year immediately preceding. This has been owing more than to any other single reason to the incompetency of some teachers to control the schools under their charge. Until greater care and judgment are used in the selection of teachers, a portion of the money expended will be of little benefit. I quote from the report of a special committee to the Council of Education held in Hartford, January 16th, 1887, which pertains to this subject. "The teacher makes the school. If the teacher is abundantly competent, the school is aboundingly good. No frequent examinations, no careful supervision can take the place of the teacher. * * * It is needful to bear this truth in mind." Our town already pays fair wages; in some cases more than is earned. You cannot increase the efficiency of an incompetent teacher by doubling their wages. The educational qualifications which are, and should be insisted upon, are but a part of the requisites of the successful teacher; and it is in this as in other callings many mistake their vocation.—WOODBURY, *W. J. Clark, Acting Visitor.*

Teachers, Recognition of Merit in.—If there is any place in the wide world where merit should be recognized and long and faithful service acknowledged, it is the school-room. Take for instance the case of a woman—a primary teacher—who has been a dozen years in the same place, taking each year a new class of pupils, fresh from the nursery, and starting them on their way; always prompt, faithful and devoted—always painstaking and successful; is it not time she had some recognition in the way of larger pay or less work? The illustration would be equally pertinent for any other grade, but such recognition is less likely to come to the lower than the higher grades.

Not every one has the native genius of the teacher, and few care to give the subject the time, thought and study, which may in part supply the place of the natural gift. The consequence is that many of our school-rooms are occupied by a sort of "journeymen"

teachers, who expect to put in so many hours of work, to hear so many recitations, and then put school matters quite out of mind till the next day, the next week, or the next year, as the case may be. They have no special interest in the reputation of the establishment, in the quality of the work done, or the value of the acquirements gained. They contract to work so many days or hours for so much money. They fulfill to the letter one part of the contract, and expect the school authorities to fulfill the other, and there is the end of it. And this must inevitably be the case, until teaching is looked upon as a profession to be followed. At present, not one teacher in a thousand expects to make teaching his or her life work. Too often the school room is a mere way station—and its duties a make-shift—something to fill up the time and yield a decent income till one's life plans can be matured.

In the case of women the term of office must be precarious ; no one can expect them to miss the opportunity of a life-time for the sake of improving the public schools. But with men the case is different. And still the instances are rare in which men think of the public school as the field of their life work. In the normal school, established especially to teach the art of teaching, the graduating class, in nine cases out of ten, is composed wholly of young ladies. The masculine element is entirely wanting.

And this leads to a further remark which may possibly evoke some criticism. It is a misfortune that we have not more men teachers in the public schools ; not in Meriden more than other places. This is no disparagement of women. They do their work and do it well. But every boy—and scarcely less every girl—should, before the completion of their school life, come under the lead and training of a man.

It might have been more elegantly expressed, but he was a wise educator who wrote “you cannot rear a race of men wholly on feminine fodder.” This homely saying contains the substance of a very important truth, and a truth the present generation is too much inclined to ignore. The tendency in many places is such as to make this criticism worthy of note. It is a mistake to substitute women for men in all the grades of the Grammar and especially the High School, notwithstanding the difference in the expense.—MERIDEN, *Rev. J. H. Chapin, Acting Visitor.*

Teachers, Value of Trained.—Among the very best teachers who come to us are the graduates of the normal schools, of whom we have quite a large number. They can be depended upon, almost without exception, to do good work wherever they are placed. They have a seasoning and finish about their work which is usually attained only after long experience. They come to us full of ideas which are fresh and bright, and expert in methods useful and practical. It is to be regretted that our ordinary schools are not yet able, from lack of apparatus, to take advantage more completely of the methods taught in the normal schools. The study of geography in particular is a dull and uninteresting study as taught

in our schools, consisting of memorizing lists of unpronounceable names of rivers, cities, and what not, a feat in mental gymnastics which few of us older ones would care to attempt. But take the same subject as handled by a rational method, as taught in normal schools; watch the teacher as she sits before her class with sand and board; see her build continents before their eyes; watch her channel out rivers, and heap up mountains and scoop out lakes, and the scholars have received a revelation.—ENFIELD, *Rev. George W. Winch, Samuel A. Booth, Dr. George T. Finch, Acting Visitors.*

Teachers' Meetings.—One pleasing and instructive feature of the last school year was the series of teachers' meetings held at convenient places throughout the town. The gatherings were perfectly informal; simply little home parties. The papers read by the teachers were on practical and useful subjects, and all of them were very creditable productions. The discussions following were instructive and animated. The plan which was started as an experiment seems to have given general satisfaction, and to have yielded good results, and will be continued the coming year.—ENFIELD, *Rev. George W. Winch, Samuel A. Booth, Dr. George T. Finch, Acting Visitors.*

Teachers' Meetings.—The Association of the Teachers has held ten sessions during the year in the Academy at the Centre, whereat the problems of the teaching profession are freely discussed and solutions attempted. Valuable papers have been read and explanations of personal methods in teaching different branches have been given, to the benefit of all. Above all, however, these meetings have developed *esprit du corps* in our teaching force, an energy that is more valuable than even culture or health. One of the Visitors has been present at each meeting and presided.—SALISBURY, *Rev. John C. Goddard, Secretary.*

Teachers' Reading Union.—During the year more than half of them have formed a Teachers' Reading Union, under the auspices of the Chautauqua University. The Bridgeport Circle has held regular semi-monthly meetings for the discussion of the various topics presented. This manifest desire for study and improvement in methods of instruction on the part of our teachers is bearing good fruit in the schools.—BRIDGEPORT, *H. M. Harrington, Supt.*

Teachers' Wages.—We have plead for years for larger appropriations. We've asked for bread and got a stone. We plead again; and for whom? Our children! Can it be possible that the present generation of parents desire that their children shall enter upon the battle of life more poorly equipped than were their fathers and grandfathers? We believe not. And yet, the course pursued by the town, if long indulged in, will be a standing farce, by-word and reproach. Let us draw a few compari-

sons. Last October the joint board divided all the town appropriation equally between the seven districts, which gave them \$134.00 each. Five districts receive in addition to this, \$21.65 from the Edgerton fund, which makes a total of \$155.65 for each of them, while the other two have no other revenue. Deducting \$12.00 for fuel and incidentals, we have for teachers' wages for the twenty-four weeks *required* by law, \$143.65, or \$5.98 a week, while in the larger districts, where thirty weeks are required, we have \$4.78 per week. In the South District, where they receive nothing from the Edgerton fund, \$134.00 must suffice for a thirty weeks' school, and on this sum they can pay a teacher \$4.07 a week.

Do you expect to procure teachers who are competent and faithful, to educate your children for such a paltry remuneration as this, when you have to pay a carpenter from \$9 to \$18 a week and a farm hand as much or more than you do a teacher, with board additional? Besides, our schools should be kept open for at least thirty-six weeks in each year, instead of only twenty-four, as at present. In short, we must have better schools, with longer terms, or people who are in search of homes will pass us by and settle among a people who are willing, as we are able, to provide respectable schools for the youth of the community.—FRANKLIN, *George E. Starkweather, Chairman, G. H. Griffing, Secretary.*

Teachers' Wages.—The wages paid for teaching have fallen, on an average, from \$32 per month last year to \$31.17. With possibly one exception, this is a change for the worse. Our teachers deserve every penny of their well-earned money. It is not enough to say, "We pay more than other towns." The *closefistedness* of others does not warrant us in defrauding, too. We are to pay according to the worth of the service, recognizing the time-honored principle "the workman is worthy of his hire."—SALISBURY, *Rev. John C. Goddard, Secretary.*

Text Books, Bad use of.—Some teachers act as if they thought that all was done when they asked the questions from a book and the scholars answered what they had learned. Education is the developing of what is in the pupil. It is training of powers and capacity, and something more is needed than stereotyped question and answer. Teachers should see to it that pupils thoroughly understand the processes through which they pass in any given study. The powers of observation and reflection should be stimulated and awakened in every scholar. I am afraid there is great failure in this direction.—NORTH BRANFORD, *Rev. F. Countryman, Acting Visitor.*

Text Books, Bad use of.—There is a tendency on the part of parents and teachers to regard text books themselves as the thing about which the pupil is endeavoring to secure a knowledge, rather than aids or means to assist him to understand the subject of which the book treats. We are sorry to note the fact that so

many of our schools are conducted upon this principle: The language of the book memorized, the subject thoroughly mastered.—SOMERS, *M. F. Gowdy, Acting Visitor.*

Text-books, Free.—There is a great lack of uniformity in the text-books found in our schools. The result is that, although a list of text-books has been prescribed by the Board of School Visitors, there being no way to force parents to get them, each child brings the book his parents buy for him and expects the teacher to form a class of which he shall be the only member. The remedy for this is also plain. Let the town take advantage of the Free Text-book Law.

My reasons for recommending the above change are, in brief: First, the economy of the plan. Books can be bought in large quantities very cheaply. They can be used until they are worn out. Second, perfect uniformity is secured. Third, all children will be supplied, whereas now many poorer children are without books.—SHARON, *C. W. Bassett, Acting Visitor.*

Visitation.—There is still a lack of *apparent interest* on the part of parents and patrons of the school in not visiting it. The question has been asked several times, by the teachers, "Why the parents and friends did not come and see how the school was conducted?" The only answer the Acting Visitor knew how to give was, "It is *possible* that they have such perfect confidence in the teachers that they have no question that all will be right." We hope that the friends of the school, in the future, will *manifest* their interest in it by visiting, occasionally, at least.—PLAINVILLE, *Acting Visitor.*

Visitation.—The West Simsbury District deserves a great deal of credit for the interest they have taken in their school. They have expended the last year more than \$800 in enlarging and improving their school house and increasing their library. Parents have visited the school. Scholars have been punctual in their attendance, a very important matter not realized as it ought to be by parents generally. When we consider the fact that more than \$5,500 have been expended in this town the past year for school purposes, every parent who has children to send to school should enquire with interest, Are my children getting their share of this great expenditure of money by a punctual attendance at school?

A teacher who has knowledge, and with it tact and ability to use such methods and to teach in such a way as to interest the scholars, will also interest the parents, and with such qualifications will not fail to be successful.—SIMSBURY, *D. B. McLean, Acting Visitor.*

Visitation.—How few parents ever visit our schools! Taking up a report of a town in a neighboring state I find a record of about 1,900 scholars and 3,800 visits, aside from official

ones, in one year. That town is evidently interested in its schools, and it is safe to guess, without knowing, that it means to have good ones. This lack of interest is noticed by teachers who are familiar with other places and is one cause of their readiness to leave us when opportunity offers, and is sometimes a more influential one than a small increase of salary,—so more than one have told me. It is, however, none the less true that salaries here should be such that no teacher be enticed away by an offer of advanced pay for the same amount of work elsewhere, and our schools thus be made a nursery to supply other vineyards.—MIDDLETOWN CITY SCHOOL DISTRICT, *William E. Hurlburt, Supt.*

Visitation.—It is beneficial to the teacher and the scholar to see the parent call at the school. If a man puts a horse out to pasture, he will go up occasionally and see how he is getting on. *How much is a boy better than a horse?* Teachers would do well to encourage parental interest by having public exercises of recitation and declamation, etc., at least once a term, wherever practicable.—SALISBURY, *Rev. John C. Goddard, Secretary.*

Visitation.—The registers show that parents hardly ever go to see the teacher engaged in the school work. The commonest laborer would receive more attention in his work than this. Yet it is impossible to know just what teacher and scholar are doing, and what their relations to each other are, without seeing them engaged in the every day duties. An exhibition day visit is not sufficient. Cases of dissatisfaction with the teacher, resulting in some course that is harmful alike to pupil, teacher, and school, would be readily adjusted, or, better still, would never arise; and, besides the encouraging and helpful influence it would have upon the teacher, a way would readily be found to prevent irregular attendance, and correct other abuses. The loss of a day at school now and then is not thought to be of any account by those who allow it, and a knowledge of the evils it occasions would soon work a remedy.—STONINGTON, *C. H. Babcock, Sec'y.*

STATE TEACHERS' EXAMINATIONS

FOR

PRIMARY CERTIFICATE.

1887.

PROGRAMME.

First Day.

A. M.—	9.00 to 9.30	-	-	SPELLING.
	9.30 to 12.00	.	-	ARITHMETIC.
P. M.—	1.30 to 2.30	-	-	WRITING.
	2.30 to 3.30	-	-	READING.
	3.30 to 6.00	-	-	GEOGRAPHY.

Second Day.

A. M.—	9.00 to 11.30	-	-	HISTORY.
	11.30 to 12.30	-	-	DRAWING (optional).
P. M.—	1.30 to 3.30	-	-	GRAMMAR.
	3.30 to 5.00	-	-	PHYSIOLOGY.
	5.00 to 6.00	-	-	SINGING (optional).

Examinations cannot be given in the different branches at any other hours than those mentioned above.

Candidates desiring to take advanced studies are requested to confer with examiner.

Theory and Practice are given under the different subjects.

GENERAL DIRECTIONS AND INFORMATION.

1. Write the date and place of examination and your *number* on the outside of the envelope. Write the date and place of examination, and your *number*, name and address on a slip of paper, and put inside of the envelope.
2. Write the date and place of examination, and *your number* and name of study at the top of each page of your work.
3. Write only on one side of the paper.
4. Prefix to each answer the number of the question.
5. Leave a margin at the left.

6. In Arithmetic, write the operation as well as the answer.
 7. The printed questions must be attached to papers containing answers.
 8. The result of the examination will be communicated to you within one month.
 9. Candidates for entrance to Normal School will be informed of the result of their examination within ten days.
 10. Physiology is essential to Primary Certificate.
-

GENERAL.

1. (a) What is a school? (b) A public or common school? (c) a class? (d) a grade?
 2. What is meant by education? training?
 3. (a) How are schools maintained?
 - (b) When you have taught a month or term what course must be taken to obtain your wages?
 4. What can be done in school for the moral training of children?
 5. What is meant by the topical method of conducting recitations? The advantages of this method and when it should be used?
 6. What is a definition? When should definitions be required?
-

READING.

I.

1. What is reading?
2. To what extent would you require pupils to read at sight?
3. What is supplementary reading?
4. How can you tell whether pupils understand the reading lessons?
5. How does reading compare with other common school branches in importance?
6. Name ten books that you would recommend to children under 15 to read.
7. Name any work on education that you have read or studied, and give a brief outline of its contents.

II.

1. What is reading?
2. How is spelling related to reading?
3. What preparation is necessary to teach a class in fourth reader? In first reader?
4. Outline three lessons suitable for a class of beginners, employing the word method in the first, the phonetic method in the second, and both these methods in the third.
5. What should determine the reader to be used by a particular class?
6. What is supplementary reading? Sight reading?

7. To what sources or authorities would you go to obtain information on the subject of reading?
8. Mention five books of reference suitable for a district library.

III.

1. Name four directions in which a child must have skill in order to read well.
2. What is the value of teaching "memory lessons?" State other exercises which effect the same result.
3. State fully how you would teach the words *permanent* and *resolve*.
4. Name ten books that you would recommend to pupils under fifteen to read.
5. How much sight reading would you have in school? State reasons fully.
6. Mention three aims to be attained in teaching phonics to little children.
7. What sound should be given the letter (or letters) underlined in each of the following words?

k <u>not</u> ,	m <u>ast</u> ,	e <u>ven</u> ,	sh <u>rink</u> ,	h <u>eir</u> ,
sh <u>are</u> ,	r <u>ise</u> (noun),	<u>who</u> ,	u <u>sur</u> y,	sc <u>rap</u> ed.

8. Speak of four forms of sound-work to be done in lowest grades.

WRITING.

I.

1. How do you begin the teaching of writing with children who have just entered school?
2. What is meant by "tracing?" "movement?" "slant?" "form?"
What is the place and advantage of each in teaching writing?
3. In what particulars do most of the different systems of penmanship agree?
When may a copy-book be used to advantage?
When is the copy-book a hindrance?
4. What mistakes are most frequently made in making the following letters?—

a n l

5. Write each of the following, ten times:

a	l	i	r	s	p
A	W	B	C	I	

6. Write, from memory, an extract of four or five lines of poetry.
7. In what way does good writing help the school?

II.

1. Write the name and address of some person.
2. Write a note.

3. Copy the following :

It is the land that freemen till,
That sober suited freemen chose,
The land where, girt with friends or foes,
A man may speak the thing he will.

4. Write out a criticism upon your penmanship in the selection copied.

5. Write the small letters in groups, determined by resemblances that may be observed in teaching writing.

6. Write the small letters in succession illustrating their relative heights.

7. Write the capital letters from N to Z inclusive.

8. State directions for preparing to give writing lessons to beginners : to older scholars upon a particular letter.

III.

1. Make the following letters :—u, t, b, g, A, W.

2. Indicate the comparative height of the following :—m, d, r, h, p, y.

3. Copy the following,

1 *Cit.* O piteous spectacle !

2 *Cit.* O noble Cæsar !

3 *Cit.* O woeful day !

4 *Cit.* O traitors, villains !

Citizens. Revenge !—about !—seek !—burn !—fire !—let not
a traitor escape. SHAKESPEAR. *Julius Cæsar.*

4. What is writing ?

5. What is the meaning of *slant*, *space* ?

6. When should children begin to learn to write ?

7. In what order should the letters be presented to a class of beginners ? What determines the order ?

IV.

1. Write the capital letters that contain (*J*) the capital stem.

2. Write words containing all the loop letters.

3. Write, several times, a short sentence which contains the word *filled*.

4. Write out a criticism on the last sentence written.

5. Write a stanza of poetry.

6. Where would you employ *tracing* in teaching *Writing* ?

7. How would you organize the writing classes in an ungraded school ?

8. Why should writing be carefully taught ?

SPELLING.

I.

1. Words pronounced orally.
2. Write sentences containing the following words : *Commerce, wreath, canvass, boulder, indict, calender, nave, plane, scull, feint.*
3. Give meaning of following abbreviations : *MMS., Nos., prox., viz., pro tem., i. e.*
4. Separate into syllables and indicate the accent of the following words : *Researches, legislator, resources, combatants, chandelier, hereditament, genuine, inquiry, naturally, decorous.*
5. Write the plurals of the following nouns : *Ratio, scarf, axis, elf, radius, pulley, octavo, cuckoo, soliloquy, piano.*
6. What is spelling?
What is the object of teaching spelling?
What is the use of the spelling book?

II.

1. Words pronounced orally.
2. Write at dictation and punctuate paragraph.
3. Divide into syllables, indicate the accent, and, by proper marks, the correct pronunciation of the following words :—*Chastisement, irreparable, nominative, rational, again.*
4. Write the plurals of the following words :—*Chromo, shelf, tableau, gallery, belief, loaf, deer, index, formula, isthmus.*
5. Distinguish between the following words by using them in sentences :—*Pile-heap, raise-rise, emigrant-immigrant, temperance-abstinence, interfere-interpose.*
6. What is spelling?
What is the object of teaching spelling?
How should spelling be taught to beginners?
What use should be made of a spelling-book?

III.

1. Words pronounced orally.
2. Define :
history, analysis, line, thick, discipline.
3. Write abbreviations of the following :
south, the present month, noon, merchandise, that is.
4. What is accent? Indicate the accent of the following words :
reward, understand, multiplier, arithmetical.
5. Write two words containing the sound of

(a) <i>a</i> in <i>fare</i> ,	(d) <i>i</i> in <i>machine</i> ,
(b) <i>a</i> in <i>ask</i> ,	(e) <i>u</i> in <i>push</i> .
(c) <i>e</i> in <i>verb</i> ,	
6. What is spelling?
What is the use of a spelling-book?

IV.

1. Words pronounced orally.
2. Write present and perfect participles of the following verbs :
blot, jar, chop, benefit, grin,
3. Write abbreviations of
ounce, ounces, next month, present,
month, noon, gallon, pages.
4. Write two words containing the sound of
 (a) *a* in *what*, (d) *i* in *ice*,
 (b) *e* in *eve*, (e) *o* in *for*.
 (c) *a* in *care*,
5. What is spelling? How would you teach it to beginners?
 What directions for teaching spelling can you give?
 What relation does spelling bear to reading?
6. Write the possessive plural of the following :
fish, ox, suffix, hero, church.

I.

Words pronounced by examiner and written by candidates.

- | | | |
|------------------------------------|------------------|------------------|
| 1. King Henry the Eighth's wives. | | |
| 2. Dodd, Mead and Company's store. | | |
| 3. dot the i's. | 11. pumice. | 19. decadence. |
| 4. add the 9's. | 12. merchandise. | 20. permissible. |
| 5. merino. | 13. solstice. | 21. adventurer. |
| 6. tying. | 14. serviceable. | 22. plodding. |
| 7. edgeways. | 15. statistics. | 23. superficial. |
| 8. rinse. | 16. sumac. | 24. athenæum. |
| 9. wince. | 17. knuckle. | 25. requisite. |
| 10. sorrell. | 18. oozing. | |

II.

- | | | |
|-----------------|------------------|------------------|
| 1. artillery. | 8. artificial. | 15. cypress. |
| 2. domicile. | 9. exemplary. | 16. considerate. |
| 3. familiarity. | 10. entrapped. | 17. irritable. |
| 4. palatable. | 11. illiterate. | 18. self-denial. |
| 5. thoroughly. | 12. till-age. | 19. belligerent. |
| 6. requisites. | 13. allurements. | 20. negotiate. |
| 7. liquors. | 14. excellency. | |

III.

- | | | |
|--------------|-------------------|-----------------|
| 1. chiseled. | 7. geyser. | 13. raisins. |
| 2. silesia. | 8. conscientious. | 14. licorice. |
| 3. incense. | 9. cornice. | 15. glycerine. |
| 4. separate. | 10. menagerie. | 16. parallel. |
| 5. seizure. | 11. faucet. | 17. secession. |
| 6. sergeant. | 12. asparagus. | 18. principles. |

- | | | |
|--------------------|-------------------|------------------|
| 19. emergencies. | 30. changing. | 41. telegraphy. |
| 20. survivors. | 31. changeable. | 42. proficiency. |
| 21. intelligent. | 32. achievement. | 43. mortgage. |
| 22. indescribable. | 33. antecedent. | 44. diameter. |
| 23. suspicious. | 34. advantageous. | 45. mechanism. |
| 24. confederate. | 35. corporeal. | 46. labyrinth. |
| 25. laurels. | 36. hygiene. | 47. diphtheria. |
| 26. carriage. | 37. distinction. | 48. pneumonia. |
| 27. stereotype. | 38. courier. | 49. rheumatism. |
| 28. civilized. | 39. annihilate. | 50. satellite. |
| 29. ascensions. | 40. precedence. | |

IV.

- | | |
|---------------------------------------|-------------------|
| 1. the judge's charge. | 11. worshipper. |
| 2. conscience sake. | 12. manufacturer. |
| 3. women's rights. | 13. solar. |
| 4. the girls class-room. | 14. liquor. |
| 5. others tastes. | 15. prevalence. |
| 6. anothers place. | 16. delinquents. |
| 7. Young Men's Christian Association. | 17. suspense. |
| 8. Godey's Lady's Book. | 18. disputants. |
| 9. antarctic. | 19. incorrigible. |
| 10. debarred. | 20. formidable. |

[Paragraph read by examiner and copied by candidates. Punctuation and spelling considered.]

To an American visiting Europe, the long voyage he has made is an excellent preparative. The temporary absence of worldly scenes and employments produces a state of mind peculiarly fitted to receive new and vivid impressions. The vast space of waters that separates the hemispheres is like a blank page in existence. There is no gradual transition by which, as in Europe, the features and population of one country blend almost imperceptibly with those of another. From the moment you lose sight of the land you have left, all is vacancy until you step on the opposite shore, and are launched at once into the bustle and novelties of another world.

 ARITHMETIC.

I.

1. Write, Eight million forty thousand, and four hundred thousand sixteen hundred thousandths, and divide it by sixteen tenths. Write the answer in words.

2. I bought a book for \$2.25. I saw by the price mark, that the retail price was \$3.00. What per cent. did the merchant throw off from the retail price?

3. A merchant received \$42 for selling goods at a commission of $2\frac{1}{2}$ per cent. What was the amount of goods sold?

4. If the earth removed in digging a ditch 8 feet wide and 4 feet deep will make a mound 100 feet long, 32 feet wide, and 16 feet high, how long must the ditch be?

5. What are the proceeds of a note for \$1,150, dated Nov. 12, at two months, discounted Dec. 13, at 6 per cent.?

6. Jan. 1, 1881, Peter Peters gave Thomas Tompkins his note on demand at 6 per cent. July 1, 1884, Peters paid \$484, the amount due, and took up the note. What was the face?

7. Bought a square lot containing 4,225 square rods. What will it cost to fence it at $16\frac{2}{3}$ cents a foot?

8. Joseph Sharp owes David Downes \$600, due April 10. Downes owes Sharp \$400, due Sept. 10. How much must Downes receive if they agree to balance their accounts June 1st?

9. How many square feet upon the surface of a cubic block that contains 46,656 cubic inches?

10. A carpenter alone can build a shop in 15 days, but with the help of his son, he can build it in ten days. In how many days can the son build it alone?

II.

1. (a) Multiply *eight* by the third power of ten. Divide *eight* by the third power of ten. Divide the *product* obtained by the first operation by the *quotient* obtained by the last operation.

Write the answer in words.

(b) Divide the *quotient* obtained by the second operation above by the *product* obtained by the first operation above.

Write the answer in words.

(c) Add the answers expressed by the words in (a) and (b), and write the result in words.

2. Multiply four hundred forty-seven million, three hundred thousand one hundred twenty-seven millionths by two, and from the product subtract eight hundred ninety-four, and six hundred thousand two hundred fifty-four millionths.

3. (a) If the divisor is three-fourths of a unit, the quotient will be what part of the dividend?

Illustrate by an example, both terms being fractions.

(b) What are names of the terms in *division* and in *fractions* corresponding to the *products* in *multiplication*.

4. A piece of land 20 rods wide, and four times as long as wide, was fenced off into sixteen equal square lots. What was the cost of fencing the lots at five cents a foot (long measure)?

5. A man hires three boys to pick his apples. John alone can pick them in 10 hours. James alone can pick them in 8 hours. John and Henry together can pick them in 6 hours. How many hours will be required if all pick together?

6. If a man divide \$15,000 among his three sons so that James shall have \$1,500 more than Henry, and John two-thirds as much as Henry, how many dollars will each have?

7. A horse dealer sold one horse for \$450, gaining thereby 20 per cent. of the cost. He sold another horse for \$450, gaining thereby 20 per cent. of the selling price. What was the cost of each horse?

8. John Johnson owes you May 10, 1886, \$200. Not having the ready cash, he gives you a note for ninety days, payable at the First National Bank, which if discounted at date will give \$200, the sum due you.

Write the note in form.

Write at the bottom of the note the word "Due," followed by the date at which it is due.

9. How much will you receive on that note if you get it discounted at 6 per cent. July 2?

$$10. 4^3 + \sqrt[4]{4096} - ({}^3\sqrt[3]{262144} \times {}^3\sqrt[3]{8}).$$

Find the value of the above.

III.

1. Prepare a problem to illustrate each of the following :

(a) Given one of the equal parts and the number of equal parts, to find the whole?

(b) Given the whole and the size of one of the parts, to find the number of parts?

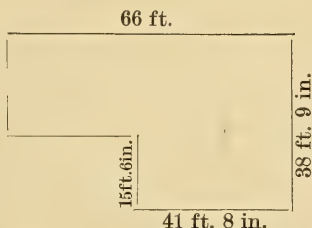
(c) Given the whole and the number of equal parts, to find the size of one of the parts?

2. Mrs. James Bird bought of John Burns, of New Orleans, La., the following articles: February 17, 1883, $\frac{3}{4}$ doz. linen napkins @ \$1.75; $2\frac{1}{4}$ doz. damask towels @ \$4.50; 3 bath towels @ \$2.40 a doz.; February 21, 1883, 2 table cloths at \$5.50; 1 piano cover @ \$5.00; 7 yds. cambric @ \$0.12 $\frac{1}{2}$; 2 pr. lace curtains @ \$2.50 a pair. Make out and receipt bill.

3. Every person breathing in a closed room spoils the air at the rate of about 8 cubic feet a minute. How long can the doors and windows of a school-room be safely kept closed when occupied by 50 children, if the room is 25 feet, 3 inches long, 20 feet 4 inches wide, and 10 feet high?

4. To carpet most economically a room 26 feet long and $15\frac{3}{4}$ feet wide with carpeting $\frac{3}{4}$ yard wide, must the strips run lengthwise of, or across the room, no strip being cut in either case? What will be the difference in cost at \$1.15 per yard?

5.



How many loads of earth must be moved in digging a cellar to the depth of 6 feet, and of dimensions as given in the above diagram? A load is estimated to be 1 cubic yard.

6. (a) What decimal and what common fractions are equivalent to $3\frac{1}{2}$ per cent., $16\frac{2}{3}$ per cent., $83\frac{1}{3}$ per cent., $14\frac{2}{7}$ per cent., 500 per cent.

(b) What per cents. are equivalent to the following: $\frac{3}{8}$, $\frac{1}{11}$, .00 $\frac{1}{3}$, .0075, 5000?

(c) A man who works "on shares" receives from one farmer an offer of 7 bushels out of every 16 raised, from another 2 out of 5, and from another 5 out of 12. Which is the best offer? (Work by percentage.)

7. If I sell from an acre of land a rectangular lot 363 feet long and 75 feet wide, for what the whole acre cost me, what per cent. do I gain on the part sold?

8. A person bought bank stock at 107 and received \$384.25 when a dividend of $7\frac{1}{4}$ per cent. was paid. How much had he invested?

9. Mr. Smith proposes to buy the house for which he is paying \$540 rent per year. He does not wish to pay more for interest, taxes, insurance and repairs than he now pays for rent. What can he offer for the house if he allows $4\frac{1}{2}$ per cent. for interest, and $1\frac{1}{2}$ per cent. for taxes, etc.?

10. (a) A room is 15 feet square and 9 feet high. What is the distance from one corner of the floor to the opposite corner?

(b) What is the distance from one corner of the floor to the opposite upper corner of the ceiling?

IV.

1. (a) The product of three factors is 50; one of them is .005 and another is 500; find the third.

(b) Change .0075 of an acre to square feet.

2. N. C. Barker bought of J. H. Fish 1345 bricks at \$6.50 per M.; 75 broom handles at \$1.12 $\frac{1}{2}$ per C; 3575 lb. of coal at \$6 per T; 3 doz. shovels at \$8.50 per dozen; 5 $\frac{1}{2}$ cords of wood at \$2.75 per cord. Make out and receipt bill.

3. (a) If 1870 shingle nails weigh 8 $\frac{1}{2}$ lb., how many such nails in 2 ounces?

(b) How many square inches on a cube whose edge is 10 inches?

4. A, B, and C trade in company. A puts in $\frac{1}{3}$ of the capital, B $\frac{5}{12}$ and C the remainder. How shall a gain of \$2150 be divided among them?

5. (a) Multiply 90098000 by 250000.

(b) Divide six million ten by one hundred forty thousand.

(c) What can be taught about the number 5?

(d) Explain and distinguish $5 \times \frac{1}{3} = ?$ $5 \div 3 = ?$ $\frac{1}{3}$ of 5 = ?

6. A owes B \$6040 July 12, 1885. A settles with B by giving his note payable in 90 days with interest at $4\frac{1}{2}$ per cent. B gets the note discounted at bank at 6 per cent. Aug. 4, 1885; how much will B receive?

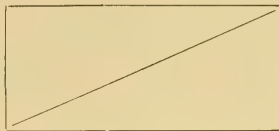
7. (a) By what per cent, is the labor of sawing firewood increased if each stick is cut into 4 parts instead of 3?

(b) A boy buys apples 5 for six cents and sells them at 25 per cent profit. How many can be bought of him for 30 cents?

8. A coal dealer bought 500 tons of coal at \$7.50 per long ton, paid \$1 per ton for freight and sold it for \$11.00 per short ton; what per cent. did he make?

9. James is two-thirds as old as William, and William is three times as old as John. Their combined ages are 24 years. What is the age of each.

10.



The figure represents a rectangular farm. The dimensions are 1984 rods—one of the longer sides and 2434 rods—the diagonal line: how many acres does the farm contain?

V.

1. (a) From two parts given, a third part is often found. State five such cases.

(b) In many rules of arithmetic three conditions are given to find a fourth. State five such cases.

(c) How is the number of bushels in a wagon or bin found?

(d). How is the number of cords in a pile of wood found?

2. J. H. Fish bought of N. C. Barker, the following :

3,145 fence pickets at \$2.25 per C ; 15,690 feet of lumber at \$18.75 per M ; 2,784 pounds of hay at \$13.00 per T ; 429 barrels of flour at \$7.06 $\frac{1}{4}$ per barrel.

(a). Make out a receipted bill.

(b). Make out note for amount.

3. A field of 5 acres in the form of a square is to be surrounded by a fence 4 $\frac{1}{2}$ feet high, to be built of boards 8 in. wide, the lower one being raised 2 in. above the ground and with a space of 3 in. between the boards. What will be the cost of fencing at \$20.00 per M. for the boards?

4. (a) Express in words the value of each of the following expressions :
 - 3000.0003 ; .3003.

(b) When in division of decimals the number of decimal places in the dividend exceed that in the divisor, why is the quotient a fraction?

(c) Nine per cent. of one quarter = ? Prove.

5. A person borrows \$100, and at the end of each year pays \$25 to reduce the principal and to pay interest at four per cent on the sum which has been standing against him through that year. How much of the debt will remain at the end of three years?

6. A merchant, in his first year in business increased his capital by $\frac{1}{4}$ of itself : and the second year by $\frac{2}{3}$ of itself ; in the third year he lost $\frac{2}{3}$ of all he had and had remaining \$15,000. What was his capital at first?

7. I have a note for \$5,000 dated Jan. 1st, 1885, due in three months, bearing interest at 6 per cent. March 1st, I had this note discounted at

a bank at 10 per cent. and invested the proceeds in land at \$20 per acre. How much land did I buy?

8. A man having \$2,750 invests it in $3\frac{1}{2}$ per cent. bonds at $88\frac{1}{4}$; afterwards when they are 93 he sells out and invests his money in a mortgage which brings him $5\frac{1}{4}$ per cent. What difference does the transaction make in his income?

8. A man gave to his four sons \$10,000 as follows: to John \$800 more than Henry; to Henry \$600 more than James; to James \$500 more than William. What sum did each receive?

10. In a square lot containing $\frac{3}{4}$ of an acre, how far is the center from each corner and from the center of each side?

GRAMMAR.

I.

1. (a) Goldsmith said to Johnson very wittily and very justly, "If you were to write a fable about little fishes, doctor, you would make the little fishes *talk* like *whales*;

(b) There is no foundation for the popular doctrine, that a state may flourish by arts and crimes.

(c) Most of the troubles which we meet *with* in the world, arise from an irritable temper or from improper conduct.

(d) "Education, when it works upon a noble mind, draws out to view many latent virtues and perfections, which without its aid, would never be able to make their appearance."

(e) If all the means of education which are scattered over the world, and if all the philosophers and teachers of ancient and modern times, were to be collected together, and made to bring their combined efforts to bear upon an individual, all they could do would be to afford the opportunity of improvement.

From the above selection write

(a) one *object* clause.

(b) one *adjective* clause.

(c) one *adverbial* clause.

(d) two *adjective* phrases.

(e) two *adverbial* phrases.

2. But Buddha softly said,

"Let him not strike great King"! and therewith loosed

The victim's bonds, *none* staying him, so great

His presence was. Then craving leave, he spake

Of life, which all can take but none can give,

Life, which all creatures love and strive to keep.

Name all the words used as connectives in the above selection and explain their use.

3. Parse the words in italics in the above selections.

4. Pronouns.

(a) Define.

(b) Syntax of.

(c) Write in classified columns all the pronouns in both the above selections.

5. (a) In what four ways may the number of nouns be determined? Illustrate.

(b) (1) When is a *noun* in the first person? (2) What class of words have distinctive personal forms?(c) When is the neuter pronoun *it* used?6. What is meant by *positive*, *comparative* and *superlative* degrees? Compare *bright*, *diligent*, *thin*, *noble*, *bad*, *good*.Distinguish between *this* and *that*.

What must be given in parsing an adjective?

7. (a) Difference in meaning between

I walked and *I have walked*.(b) *I shall go* and *I will go*.

(c) Distinguish :

Few men have been more unhappy, and*A few men have been more unhappy*.(d) Change the following sentences to express 1. *past time*.
2. *future time*.1. *The men rise early*.2. *The girl raises her head*.

8. Analyze :

Time, even Time, in all the vast expanse

Of this our human life,

Finds plenteous wisdom for the souls that seek.

9. (a) Combine the following separate statements into a *compound* sentence :

Bois-Gilbert turned his countenance towards Rebecca.

He then exclaimed [something],

He did so looking fiercely at Ivanhoe.

He exclaimed, "Dog of a Saxon! take thy lance, and prepare for the death thou hast drawn upon thee."

(b) Change the following *complex* into a *compound sentence* :

The heart of Robert Bruce, which was preserved in a silver case, was consigned to the care of Douglas.

(c) Combine the following group of statements into a *complex* sentence :

The old bell-man rang the bell.

He rang it when the Declaration was adopted.

This bell proclaimed "liberty throughout all the land and unto the inhabitants thereof."

(d) Change the following *simple* sentence to a *complex sentence*.

The ancients believed the earth to be the center of the universe.

(e) Change the following *complex* sentence to a *simple* sentence:

When morning began to dawn, our ship struck on a sunken reef, near the rock-bound coast.

10. (a) What parts of English Grammar can be taught by practice in language work?

(b) State five methods of supplying children with material for language lessons.

II.

1. Analyze the following : (Selection I). The travelers into the *East* tell us that when the ignorant inhabitants of these countries are asked concerning the ruins of stately edifices which yet remain among them, they always answer that they were built by magicians.

2. Construct a sentence of which the following is the analysis :—Sentence *a* adverbial to *b* ; sentence *b* principle ; sentence *c* object of *b* ; and sentence *d* coördinate with *b*.

3. (a) Make lists of the *adjectives* and *participles* in the following :—(Selection II.)

Deeper and narrower grew the dell.
It seemed some mountain *rent* and riven,
A channel for the stream had given,
So high the cliffs of limestone grey,
Hung bristling o'er the torrent's way.

(b) In what respects does a participle resemble and in what respects differ from an adjective.

(c) Give the past participle of *fall*, *write*, *spring*, *bay*, *seek*.

(d) Give two sentences containing verbal nouns.

(e) What adjectives do not admit of comparison? Give examples and show why they do not.

4. (a) Make a list of all the pronouns in the following, pointing out to which class they belong :—

(Selection III.)

I said, Oh ! *lead* me oftentimes to huts
Where poor men lie, that I may learn the stuff
Which life is made of, its true *joys* and griefs,
What things are daily *bringing* grief and joy
Unto the hearts of millions of *my* race.

(b) What are the two forms of the possessive case of *I*, *thou*, *we*, *you*? How do you determine which is to be used?

(c) Distinguish *who*, *what*, *which* and *that*.

5. Give the meaning of the following in your own words : (Selection IV). His wisdom by often evading perils, was turned rather into a dexterity *to deliver* himself from dangers when they pressed him, than into a providence to prevent and remove them afar off.

(Selection V.)

O'er wayward childhood wouldst thou hold firm rule,
And sun *thee* in the light of happy faces?
Love, hope, and *patience*, *these* must be thy *graces*,
And in *thine* own heart they must *first keep* school,

6. Parse the italicized words in the above selections I, II, III, IV, V.

7. (a) From the above selections I, II, III, IV, V, write four *adjective clauses*.

(b) Write four sentences of your own, each with an extension or modification of the predicate (1) of *time*, (2) of *place*, (3) of *cause*, and (4) of *manner*.

8. When is a noun in

(a) The Nominative case?

(b) The Objective case?

(c) The Possessive case?

9. Turn the *adjective* clauses in the following into *adjectives*;—(1) Un-easy lies the head that wears a crown. (2) He died in the village where he was born. (3) He was ignorant of the danger which hung over him. (4) The rays which the sun emits bring light and heat to our earth.

Turn the following *noun-clauses* into *nouns*:—(1) What he lived was more beautiful than what he wrote. (2) We do not doubt that the man is innocent. (3) The general encouraged his soldiers both by what he said and by what he did. (4) The success of the expedition depends on who is appointed leader.

10. Tell which of the following sentences are simple, which complex, and which compound.

(a) To err is human; to forgive divine.

(b) The shadow of the earth on the sun's disk is always round; hence this is a proof of the earth's rotundity.

(c) How oft the sight of means to do ill deeds, makes ill deeds done.

(d) Recollect that trifles make perfection and perfection is no trifle.

(e) Nor is it given us to discern what threads the fatal sisters spun.

(f) The fairest action of our human life is scorning to avenge an injury.

11. Give briefly an outline of your method of teaching grammar to beginners.

What are "language lessons"?

What is *parsing*? Why do we parse?

III.

I. Construct a sentence of which the following is the analysis: sentence (a), adverbial to (b); sentence (b), principal; sentence (c), adjective to (b); sentence (d), co-ordinate with (b).

II. Analyze:

Hugh Miller said that the only school in which he was properly taught was *that* world-wide school in *which* toil and hardship are the severe but noble teachers.

III. What kind of a sentence—simple, complex, or compound is each of the following? Give a reason for each answer:

1. Now fades the glimmering landscape on the sight.

2. Count that day as lost whose low descending sun

Views from thy hand no worthy action done.

3. Better far pursue a frivolous trade by serious means than a sublime art frivolously.

4. We learn wisdom from failure more than from success.

5. He who allows his application to falter or shirks his work on frivolous pretexts, is on the sure road to ultimate failure.

IV. Express in your own words the meaning of each of the following :

1. *Still achieving*, still pursuing, learn to labor, and to wait.

2. Blessings ever wait on virtuous deeds, and though a late a sure reward succeeds.

3. Truly good books are more *than* mines to those who can understand them. They are the breathings of the great souls of past times. Genius is not embalmed in them as is sometimes *said*, but lives in them perpetually. But we need not many books to answer the great ends of reading. A few are better than many ; and a little time *given* to the faithful study of the few will be enough *to quicken* thought and enrich the mind.

V. Parse all the italicized words in the above selections.

VI. Justify the use of the following italicized *verbs* and *pronouns* :

1. Books *is* a noun.

2. Either you or I *am* right.

3. This orator and statesman *has* gone to *his* rest.

4. To relieve the wretched *was* his pride.

5. Neither wealth nor wisdom *is* the chief thing.

VII. When is a noun in the—

(a) Nominative case.

(b) Objective case.

(c) Possessive case.

VIII. (a) Write sentences containing the simple personal pronouns in the singular number, objective case.

(b) What is a relative pronoun?

(c) Give two rules for use of relatives.

(d) write sentences illustrating these rules.

IX. (a) In the following sentences, turn the adjective clauses into adjectives :

1. The messengers brought news of a vast army which was drawing near.

2. He applied himself steadily to a task which involved much labor.

3. He is a friend that will help me.

4. Tell him the news which will gladden his heart.

(b) Turn the adverbial clauses in the following into adverbs :

1. If I sit longer where I am sitting I shall catch cold.

2. The statement is wrong as any body can see.

3. He shook his head as if he disapproved.

4. Give him this information before you do anything else.

X. (a) What is English Grammar?

(b) Why is it studied?

(c) What is meant by "Language Lessons"?

(d) How can you gain correctness of expression from pupils?

(e) State your method of conducting exercises in written composition.

IV.

SELECTION I.

'I wonder what becomes of the Frog when he climbs up and disappears so that we do not see his shadow until he is among us when we least expect him. Does anybody know where he goes to? Tell me, *somebody*.' Thus chattered the Grub of a Dragon-fly as he darted about.

'Who cares what the Frog does?' answered one of those who overheard the inquiry. 'What is *it* to us?'

The curiosity of the Gnat was a little checked; but, do *what* he would, he could not help *thinking* of the disappearance of the Frog. What becomes of the Frog, when he leaves this world, *being* the burden of his inquiry.

SELECTION II.

Rivers will always have one shingly shore *to play over*, where they may be shallow and foolish, and childlike; and another steep shore, under which they can pause, and, purify themselves, and get their strength of waves fully together for due occasion.

1. Parse the words in italics, omitting rules, declensions and conjugations.

2. Analyze first sentence in Selection I.

3. Write the parts of speech in Selection II, in columns.

4. Write out by itself each simple, complex or compound sentence in both selections, naming the subject and predicate of each principal and subordinate clauses.

5. Arrange under separate heads the clauses and phrases, stating whether substantive, adjective or adverbial.

6. The verb.

1. Uses.

2. Classes.

3. Modifications.

4. In parsing a verb what must be stated?

7. (a) When must a verb be in the imperative mode? (b) In the infinitive mode? (c) In the subjunctive mode, present tense? (d) In the past perfect tense? (e) In the passive voice?

8. (a) In what four ways may the number of nouns be determined? Give an example of each.

(b) In what three ways may the masculine of nouns be distinguished from the feminine? Give an example of each?

(c) When is the neuter pronoun used?

9. Give five rules for the use of capitals; write a sentence to illustrate each.

10. What would be the first year's language work in school for a child 6 years old?

State the purpose of teaching Grammar, and contrast it with the plan pursued in any school with which you may have been acquainted.

How would you teach the parts of speech?

GEOGRAPHY.

I.

1. (a) In what direction is the earth rotating? (b) How is this indicated by day and at night respectively? (c) What is the earth's motion of revolution? (d) Show how the motions of the earth determine our divisions of time.

2. (a) Into what races are mankind divided? (b) On what portions of the world is each distributed? (c) To what race do the Esquimaux belong? The Arabs? The Hindoos?

3. (a) To what three principal causes are differences of climate due? (b) What determines the greater or less abundance of rainfall in particular regions?

4. Name and describe the river-systems of the United States?

5. Give outline of lesson on Connecticut.

6. (a) What State takes the lead in the production of tobacco? cotton? rice? sugar? in commerce? manufacturing? (b) Locate the important gold and silver regions of the United States. (c) In what occupation does Illinois take the lead? Pennsylvania? Maine? Connecticut?

7. What natural boundary separates Minnesota and Wisconsin? Ohio and Kentucky? Georgia and South Carolina? Where are the following cities:—Teheran, Dubuque, Dresden? Where are the following seas:—Azof, Caspian? the following islands:—Cyprus, Tasmania?

8. What countries of Europe are in the Southern Peninsulas? Give the capital of each and one important export.

9. Asia. (a) Plains and plateaus.

(b) Names and courses of three principal rivers.

(c) Parts in different zones.

(d) Parts belonging to European nations.

10. (a) Give some account of the Nile and of its annual inundations.

(b) What has been ascertained within late years respecting its sources?

(c) Name three other African rivers flowing into the Atlantic.

II.

1. Mention four small circles distinguished by specific names. Locate each and tell by what its location is determined. State what each separates.

2. What subjects are included under

(a) Mathematical geography.

(b) Physical geography.

(c) Political geography.

(d) What connection is there between the physical and political geography of a country.

(e) Give an example of the way in which the physical geography of a country affects the condition and pursuits of its inhabitants.

3. Outline the principal physical divisions of South America and Europe.

4. (a) What is the general form of the continents? In what direction do they point? The exceptions.

(b) What is the general shape of the oceans? In what direction do they broaden?

(c) Compare the continents in respect of size; the oceans.

5. Name and locate the American islands that are situated (1) in Atlantic Ocean, (2) in Pacific Ocean, (3) in Carribean Sea, (4) in Arctic Ocean.

6. Name and locate the peninsulas that belong (a) to North America, (b) to South America.

7. What rivers of Europe flow into White Sea, Arctic Ocean, Baltic Sea, Caspian Sea, Mediterranean Sea?

8. (a) Why are countries within the tropics hotter than other parts of the world?

(b) Explain the influence which the sea exerts upon climate.

(c) How do mountain chains and plateaus affect climate?

(d) Labrador and England are about the same distance from the equator; how do you account for the difference in climate?

(e) Compare Switzerland and Italy in respect of climate?

9. Mention and locate ten of the leading commercial cities of Europe.

10. Give a brief description of the Trade Winds, including (1) Cause (2) Direction (3) Use to man.

III.

1. (a) What determines the position of the *tropics* and the polar circles?

(b) When are our days and nights of equal length, and why?

(c) The succession of day and night appears as if it were due to the movement of the sun across the sky; explain how it is really caused by the motion of the earth.

2. (a) Explain exactly the meaning of the terms,—*Map, globe, meridian, horizon*.

(b) Explain how a traveller can learn his longitude by his watch.

(c) The parallels of latitude are represented as straight lines on the map of Connecticut, while on the map of North America they are curved. Why is this?

(d) What is the shortest line between any two points on a globe?

3. Draw a map of the coast line from Maine to the Rio Grande. Mark *straits, capes, bays, river mouths* and *seaports*. If you can, mark lines of latitude and longitude.

4. Name two lakes in New England, three in the remainder of the United States, two in South America, three in Asia and two in Africa. Describe the situation of each, and name any rivers that flow through or issue from them.

5. (a) What mountains are included in the Appalachian system and in what course or courses do its chains run?

(b) How do the Rocky and Appalachian mountains compare in height and extent?

(c) Name the principal mountain chains in or adjacent to Asia. (d) Where do they lie and what are their directions?

6. Describe the Pacific Ocean—its islands, straits, surrounding countries, currents, prevailing winds.

7. What strait or channel lies between Wales and Ireland? Wales and the southern part of England? Ireland and Scotland? Borneo and Celebes? Patagonia and Terra del Fuego? Labrador and Greenland? Labrador and Newfoundland?

8. (a) What are the proportions of land and water on earth's surface?

(b) On which side of the equator does most of the land lie?

(c) Why is Australia called a continent?

(d) Name the three natural circumstances that make radical differences between continents.

9. Draw a map of Connecticut. Name and locate the counties, cities, rivers.

Mention the principal agricultural products and the principal articles manufactured.

10. (a) Bound New England. (b) Name the states in order of size. (c) Of population. (d) Of population to square mile. (e) In what occupation does each take the lead?

11. What books on Geography have you studied or read? What books of reference, if any, would you use for teaching geography to children who could read easily?

HISTORY.

I.

[Write upon eight of the following.]

1. Early Icelandic and Norse expeditions.
2. (a) The first two voyages around the world. (b) Sir Walter Raleigh.
3. The early settlers of Virginia and Massachusetts compared.
4. Financial troubles during the War for Independence.
5. Give full account of Nathan Hale.
6. What is meant by—(1) a declaration of war,—(2) a siege,—(3) a privateer, (4) a truce,—(5) a treaty,—(6) a blockade,—(7) contraband of war,—(8) an embargo.
7. Causes and results of the insurrections that have occurred in our history.
8. Make an outline of Mexican war for class study.
9. Trace Gen. Grant from Cairo through the siege of Vicksburg.
10. Explain (a) panic of 1837, (b) alien and sedition laws, (c) tariff of 1828, (d) Jackson's veto.
11. Write short sketches of two of the following, (a) Benton, (b) Silas Wright, (c) Buchanan, (d) Douglas, (e) Seward, (f) "Stonewall" Jackson, (g) Garfield.

12. Give account of Atlantic cable.
13. Growth of territory in United States since 1800.
14. Banking systems in United States from 1789 to present time.
15. Answer five of the following :
 1. How is the number of members in the National House of Representatives determined.
 2. What States have compulsory education laws ?
 3. Has the United States ever been out of debt ?
 4. Who served nine terms in Congress after he had been President of the United States.
 5. What are the necessary steps in changing a Territory to a State ?
 6. If the President and Vice President should both be unable to serve, who would become President ?
 7. What is meant by a "Congressman-at-large" ?
 8. What is the salary of the President ?
 9. What is a "bureau" in our government ?

II.

[Write upon eight of the following topics. The subdivisions are given to assist you but you need not be confined to them nor follow them.]

1. Form a table of explorers and discoverers of the following nations, giving name, date, and place :
 - a. Spanish (5).
 - b. French (5).
 - c. English (6).
2. (a) Show by a tabular arrangement, when and by whom the thirteen original colonies were settled. (b) Give in the same table, two important events in the early colonial history of each colony.
3. Explain the terms :—(a) Royal Province, Charter Government, Proprietary Government. Arrange the original colonies under these heads.
4. Write not more than a page about life in a New England town 100 years ago.
5. Write not more than a page about life on a southern plantation 100 years ago.
6. Describe the settlement of Connecticut :
 - a. How many colonies ?
 - b. Where located ?
 - c. Their names ?
 - d. By whom founded ?
 - e. Tell anything you know about its charter.
 - f. Name five distinguished Connecticut men, and tell what events they were connected with.
7. Explain the following : (a) Alien and Sedition laws. (b) The embargo act. (c) The non-intercourse act. (d) Nullification. (e) The Monroe doctrine. (f) Re-construction.

8. (a) Name in chronological order what you regard as the five great wars of this country.

(b) State the causes which led to each ; the length of each ; the results of each ; the most important battles of each.

9. Form table giving name of each president, date of service, politics, and two principal events of each administration.

10. Describe carefully the military movements during our late civil war, by which the Mississippi river was opened.

11. Assign the following to their proper period, and write upon one of them : the invention of the cotton gin ; the building of the first railroads ; the first steamboat in the United States ; the first electric telegraph ; the " gold fever " ; the use of iron-clads.

12. By what events are the following years distinguished :—1513, 1628, 1759, 1765, 1783, 1789, 1815, 1820, 1826, 1848, 1854, 1861, 1865.

13. Growth of modes of communication.

(a) The post office.

(b) The telegraph.

(c) The railroad.

(d) The boat.

14. Campaigns of 1864.

(a) At the East.

(b) Naval engagements.

(c) At the West.

(d) Sherman's March.

III.

[Write upon six of the following questions.]

1. Discovery and Settlement :

1. Describe briefly the history of France in the New World, not neglecting the following particulars :

(a) The motives which actuated the French explorers.

(b) The unsuccessful attempts at settlement.

(c) The first permanent foothold.

(d) Extent of her claims in 1700.

(e) Expulsion from the New World.

2. Give the date and terms of the treaty which accomplished it.

II. Colonies :

(a) How many of the colonies were settled by persecuted people?

(b) Give the prevailing form of religion in each colony.

(c) What colony was most liberal in its conditions of citizenship?

(d) Local self-government as illustrated in the northern, southern, and middle colonies.

(e) Account for the difference.

III. War for Independence :

1. Account for the military spirit and skill which prepared the colonists for the Revolution.

2. Mention the events of the Revolutionary War which form part of the history of this State.

IV. The Constitution :

(a) In what respects is the Constitution an improvement on the Articles of Confederation.

(b) What rights under the Constitution are exclusively federal?

(c) What rights were reserved by the States?

V. Alexander Hamilton as a

(a) Soldier.

(b) Statesman.

(c) Financier.

(d) Party-leader.

VI. 1. Give in chronological order all the important acquisitions of territory since the Revolution, and state how they were gained.

2. What three claims had the United States to the territory of Oregon?

VII. What were the political parties and their principles in 1800 ; in 1836 ; in 1860 ?

VIII. When and under what circumstances has the doctrine of State Sovereignty caused trouble to the nation ?

IX. Compare the United States of 1790 with the United States of 1850, in respect to

(a) Wealth.

(b) Population.

(c) Size.

(d) Modes of communication.

(e) Educational advantages.

X. The Confederacy :

1. (a) When and why was it formed?

(b) What states did it include?

(c) Who were its leaders?

(d) How long did it last?

2. Describe Lee's attempted invasion of the North.

XI. Johnson's Administration :

(a) Thirteenth Amendment.

(b) The Freedmen's Bureau.

(c) Civil Rights Bill.

(d) Tenure of Office Act.

(e) Impeachment.

(f) How did the Reconstruction Policy of Johnson differ from that of Congress?

XII. What action was taken by the last Congress concerning the Tenure of Office Bill? What was the effect of this action?

IV.

[Write upon eight of the following topics. The subdivisions are intended to assist you but you need not be confined to them nor follow them.]

1. Columbus.

(a) his ideas.

(b) his discoveries.

(c) his character.

2. (a) Discoveries of Spain, France and England 1492—1607.
(b) Discoverers and navigators of each.
(c) Personal account of two.
(d) The purpose of each nation.
3. Florida.
(a) Discovery and
(b) Exploration.
(c) Three unsuccessful attempts of Spaniards to establish colonies.
(d) Settlement of St. Augustine.
(e) How disposed of by treaties of 1763 and 1783.
(f) Acquisition by United States.
4. The Colonies.
(a) The purpose in the establishment of each.
(b) When, where, by whom settled.
(c) The form of government of each.
5. The Revolutionary Period :
(a) Defend the Tories, if you can. Show which party, Whig or Tory, was on the side of the English Constitution.
(b) In what campaign were the Americans most successful? State in outline the aims of both parties.
(c) Discuss the military ability of Lafayette.
(e) The Newburg Addresses.
6. The foreign element in the war for independence.
(a) Hessians } on British side.
(b) Tories }
(c) Volunteer officers } on American side.
(d) French Alliance }
7. Relations of United States with France and England from 1787 to 1815 and effect of these relations on politics of United States.
8. Jackson's Administration.
(a) United States Bank.
(b) Nullification.
(c) Wars with the Indians.
(d) Character of Jackson.
9. (a) Causes of the war for the Union.
(b) Questions settled by the War.
10. Give an account of following battles, and tell why they were important.
(a) Monitor and Merrimac.
(b) Gettysburg.
(c) New Orleans.
(d) Vicksburg.
11. Foreign relations of United States in civil war.
(a) Trent affair.
(b) Confederate Cruisers.
(c) Occupation of Mexico.
12. Amendments to Constitution since 1861.
13. Paper money from 1862 to 1879.

14. Give a brief account of the connection of one of the following with the War for the Union :
Gen. Hancock, Gen. Logan, Gen. Thomas, Gen. Meade.
15. Write not less than ten lines of each of two of the following topics.
 - (a) Braddock's defeat.
 - (b) Hartford Convention.
 - (c) Civil Service Reform.
 - (d) The Chinese question.
16. Name the political party represented by each of the presidents.
17. The leading political and industrial questions at present before the country.

PHYSIOLOGY.

I.

1. (a) Why do we breathe?
(b) How do we breathe?
2. (a) Explain the terms *auricle*, *ventricle*, *valve*.
(b) Describe the action of valves of the heart ; of the valves of the veins.
3. What are the classes of foods? Give an example of each.
4. (a) *How much*,
(b) *what*,
(c) *when and*
(d) *how* should we eat?
5. (a) Describe the different kinds of muscles.
(b) Why do we need exercise? When is the best time for it?
6. What experiments show the composition of bone?
7. What is meant by *reflex action*? Illustrate by examples.
8. Describe the coats of the eye.
Give some directions as to the care of the eyes.
9. Explain how we are able to hear.
10. What is meant by stimulants and narcotics?
Do they serve any useful purpose?

II.

1. How do we breath?
2. Difference between good and bad air?
3. Describe the heart?
4. What is digestion? Why is heavy bread more indigestible than light bread?
5. What kinds of exercise do children need?
6. What are the benefits from bathing?
7. What cautions should be given in school about the use of the eyes?
8. What are the immediate effects of alcholic liquors?
9. What are their effects upon the heart and liver?
10. What other stimulants and narcotics are commonly used?

III.

1. Describe the lungs.
2. How does oxygen get into the blood?
3. Describe the heart and explain its function.
4. Trace the course of blood in its circulation.
5. What are the conditions of good digestion? The effects of bad digestion?
6. Explain fully the use of clothing.
7. State some important facts about the brain and nerves.
8. Explain the composition of bones. Why should they receive special attention in early life?
9. How does alcohol affect the circulation?
10. Take *one* of the following topics :
 - (a) Some of the important laws of health that every teacher should observe and impress upon scholars.
 - (b) Physical exercises ; their place, object and kinds you consider most advantageous in the grade of school you wish to teach.

IV.

1. Describe the stomach and explain its part in digestion.
2. Describe the different kinds of blood-vessels.
3. Explain the varieties of food and their use.
4. What difficulties ordinarily attend the ventilation of a school-room?
5. What are the benefits from muscular exercise?
6. Explain some functions of nerves.
7. Give five laws of health.
8. What are the common alcoholic liquors? How do they differ from alcohol?
9. Explain in full the effect of alcohol on digestion.
10. What are the different stages in the continued use of alcohol?

SINGING.

1.



Supply notes or rests to fill the measures.

2. Write the diatonic scale in Bb.
3. Write the chromatic scale in D.
4. Write an exercise of six measures, key of E, common time.
5. Write a little melody of not less than ten measures, any key, any time. Supply an alto.
6. What tones are common to the keys of G and F?
7. Write syllables (do, re, etc.,) for notes in following exercises :

(a.)



(b.)



DRAWING.

I.

1. Draw and name four triangles, three quadrilaterals, and three solids.

2. State the difference between a vertical line, and a perpendicular line.

May they ever be one and the same?

3. Upon the diameters and diagonals of a three inch square make a design in straight and curved lines. (Original.)

4. Sketch some plant or flower from memory.

5. Draw (free hand) a book showing three sides.

6. Draw a cone having its axis horizontal, and oblique.

7. Draw an ordinary barn showing one end and one side, and having a sloping roof.

8. Represent a three inch square room, the floor being below the level of the eye.

9. Find the center of the floor. Represent a door and a window on one side. In the middle of the opposite side hang a mirror.

10. What is an axis of symmetry?

11. What do you understand to be the "conventionalization" of a leaf or flower?

II.

Constructive—(Mechanical.)

1. Draw a ruled square of two inches; add its diameters and diagonals.

2. Draw a ruled oblong $1\frac{1}{2}$ by 3 inches.

3. Define a right angle, acute, obtuse; draw an illustration of each.

4. Write the names of ten triangles or quadrilaterals.

5. Make the "working drawings" (plan and elevation) for a rectangular solid of the following dimensions: Height, 2 inches; length, 4 inches; width, $1\frac{1}{2}$ inches.

Representative—(Freehand Outline.)

1. Draw the form of any leaf or flower, or both, with which you are familiar.
2. Draw a representation of a cube in such a position that three of its sides are visible.
3. Draw a representation of a vertical cylinder in such a position that its upper face is visible.
4. Draw a square of three inches (without measurement).
5. Draw a regular pentagon with sides 2 inches long.

Decorative—(Freehand).

1. Conventionalize the leaf or flower drawn under last heading, using a vertical line 2 inches long as the "axis of symmetry."
2. "Line in" clearly, leaving construction lines as first drawn.
3. Draw a circle 4 inches in diameter; add its vertical and horizontal diameters.
4. Within this circle draw a symmetrical design, using the form you have conventionalized as a "unit of design."
5. Erase the circle and diameters and "line in" the design neatly.

EXAMINATIONS

FOR

ADVANCED CERTIFICATE.

PROGRAMME.

First Day.

A. M.— 9:00 to 11:00	- -	CIVIL GOVERNMENT.
11:00 to 12:30	- -	BOOK-KEEPING.
P. M.— 1:30 to 4:00	- -	GEOMETRY.
4:00 to 6:00	Choice of	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;"> { ENGLISH LITERATURE, AND GENERAL HISTORY, CHEMISTRY. </div> </div>

Second Day.

A. M.— 9:00 to 12:00	- -	ALGEBRA.
P. M.— 1:00 to 3:30	- -	PHYSICS.
3:30 to 6:00	- -	PHYSICAL GEOGRAPHY.

Examinations cannot be given in the different branches at any other hours than those mentioned above.

Candidates desiring to take advanced studies are requested to confer with examiner.

Theory and Practice are given under the different subjects.

ALGEBRA.

1. Change the following expression to its simplest form :

$$x^3y^2 - \left(-xy^2 + x^3 - \frac{x^4}{y} \right) xy - x^2 \left[- \left\{ y^3 - y(xy - x^2) \right\} \right].$$

2. (a) Given the sum and product of two numbers, find the numbers.

(b) Prove that for a trinomial to be a perfect square the middle term must be twice the product of the square roots of the first and last terms.

3. Find the least common multiple of $x^3 - x$, $x^3 - 1$ and $x^3 + 1$.

4. (a) What is denoted by a^0 ? a^{-3} ? $a^{\frac{2}{5}}$? (b) Prove that $a^m a^n = a^{m+n}$.

(c) Simplify $(a^{\frac{1}{3}} \times a^{\frac{5}{7}})^{\frac{7}{11}}$. (d) Add $\sqrt[3]{40}$ and $\sqrt[3]{135}$.

5. State the principles upon which elimination depends. State the different methods of elimination. Solve the following equations by two methods : $6x + \frac{1}{2}y = 0$, $2(4x - 1) = 3(y - 8)$.

6. (a) Write the equation whose roots are 3 and $-\frac{3}{2}$.

(b) Solve $x^2 = \frac{x+1}{5256}$.

7. Solve $5x - 7x^2 - 8\sqrt{7x^2 - 5x + 1} = 8$.

8. (a) Expand to four terms $(1+x)^{-\frac{1}{2}}$

(b) Write the fourth term in the expansion of $\left(c - \frac{d}{4}\right)^9$.

9. A man invests half his property at 5 per cent., a third at $2\frac{1}{2}$ per cent. and the remainder at 4 per cent. His income being \$360, what is his capital?

10. How many odd numbers consisting of two figures can be formed with the ten digits?

GEOMETRY.

1. Define *solid*, *plane*, *postulate*, *focus of a point*, *commensurable quantities*.

2 (a) If an angle be $\frac{3}{4}$ of a right angle, what is its complement? Its supplement?

(b) Show that if two angles have their sides perpendicular they are either equal or supplementary.

3. Prove that a straight line which is perpendicular to a radius at its extremity is tangent to the circle at that point.

4. What is the value of the rectangle that is contained by the sum and difference of two lines. *Demonstrate*.

5. The three sides of a triangle are AB 100 feet, BC 89 feet, AC 21 feet. Find

(a) Length of perpendicular from C to AB.

(b) The area of the circumscribed circle.

6. Given the side of a triangle, its vertical angle, and the radius of the circumscribing circle : construct the triangle.

7. In the same circle or in equal circles incommensurable arcs have the same ratio as the angles which they subtend at the centre. *Demonstrate.*

8. If a straight line be parallel to another straight line drawn in a plane, it is parallel to the plane. *Demonstrate.*

9. What relations exist between the sides and angles of a spherical triangle and those of its polar triangle. *Prove.*

10. What is the length of the longest line that can be drawn through a rectangular block 12 feet long, 4 feet wide, and 3 feet thick ?

BOOK-KEEPING.

1. Make two short bills, one for goods sold and the other for services rendered.

2. Make a draft on Chicago, observing the following conditions : Drawer, N. C. Barker ; drawee, Isaac Warren ; payee, J. H. Fish ; amount, \$375.85 ; time, 30 days. Write the acceptance in due form.

3. Find the cost of the draft, exchange being at 1 per cent. discount and interest being at 6 per cent. ; also the *face* of a similar draft purchasable under the same conditions for \$500.

4. When is a check, note, or other paper representing money value, negotiable, and when non-negotiable ? Describe the process by which a paper payable to order is transferred from one person to another.

5. Name the books commonly used in single entry book-keeping ; in double entry.

6. Make a short personal account. Balance, close, and reopen it.

7. Bought of J. H. Fish on our note at 60 days, 5 bbls. pork, 1,000 lbs., at 10c. Make the day book, journal, and ledger entries required by this transaction.

8. What accounts close into profit and loss ? Into which account does profit and loss close ?

PHYSICS.

1. Define *matter, force, adhesion, mechanics, radiation.*

2. Explain the parallelogram of forces.

3. Describe the kinds of levers. Compare them in respect of the power gained.

4. How do we find the specific gravity of solids ? Of liquids ?

5. Explain a spring ; a siphon. What is the greatest height to which water can be carried by a siphon? Will a siphon be effective in a vacuum?

6. How is the pressure on the side of a vessel filled with water calculated?

7. (a) How is a barometer made and what does it measure?

(b) How is a thermometer made and what does it measure?

8. What is a lens? Name and describe the different kinds of lenses.

9. Explain the difference between noise and music.

10. Describe latent, sensible, and specific heat and describe the way in which heat is diffused.

CHEMISTRY.

1. What is an acid ? a base ? a salt ? chemical affinity ?

2. (a) How is oxygen prepared ?

(b) How is hydrogen prepared ?

3. Explain the chemistry of fire.

4. Name the substances whose formulas are KNO_3 , Na_2 , CO_3 , $\text{Ca}(\text{HO})_2$, Fe_2O_3 .

5. Explain $\text{Zn} + \text{H}_2\text{SO}_4 = \text{ZnSO}_4 + \text{H}_2$.

6. How is illuminating gas made ? What is coal ?

7. How is cast iron obtained from the ore ? How is wrought iron obtained from cast iron ? What is steel ?

8. What is an anaesthetic ? Which of the compounds of nitrogen with oxygen is an anaesthetic ? How is it prepared ?

9. Write out the reaction which occurs when hydrochloric acid is added to silver nitrate.

10. What is an experiment ? What is the object of an experiment ?

PHYSICAL GEOGRAPHY.

1. (a) What subjects are included under

(1) Mathematical geography.

(2) Physical geography.

(3) Political geography.

(b) What connection is there between physical and political geography of a country ?

(c) Give an example in which the physical geography of a country affects the condition and pursuits of its inhabitants.

2. Describe structure of North America.

3. Distinguish continental and oceanic islands, giving examples of each. Give in detail characteristics of oceanic islands.

4. Humidity of the air.

(a) Evaporation.

(b) Dewpoint.

Condensation. Causes.

5. Distinguish carefully *currents*, *waves* and *tides*. Give the causes of each.

6. (a) In what do the general deviations from astronomical climates consist?

(b) How are they caused?

(c) To what are local deviations due?

(d) Explain the extreme contrasts of temperature on opposite coasts of the North Atlantic.

7. (a) In what zones are most food-plants of civilized man indigenous? Give examples.

(b) From what zone are luxuries derived? Give example.

(c) What continents produce the greatest amount of the precious metals? Useful metals? Coal? Give examples.

8. Name and give position with reference to the various countries, of the mountains of Europe.

CIVIL GOVERNMENT.

1. (a) Into what departments is government usually divided?

(b) How far were these represented in the Articles of Confederation?

(c) How far are they represented in the Constitution of the United States?

2. What is a constitution? How is it produced?

3. When was the present Constitution of Connecticut adopted? What was the Constitution prior to that time, and whence was it derived?

4. State in detail how change in our State constitution would be brought about if the right to vote were extended to women? How would the change in the Constitution of the United States be effected?

5. What is the difference between a *plurality* and a *majority*? Of what special interest is this question to the people of Connecticut?

6. (a) Who are allowed to vote in Connecticut? (b) Can a voter lose his right? (c) Which government, national, state or local, prescribes the qualifications of voters? (d) Is this power limited in any way?

7. Briefly describe the Magna Charta.

8. What is a writ of *habeas corpus*? An *ex post facto* law? A bill of attainder? What mention of each is made in the Constitution of the United States?

9. If you live in a city mention the principal city officers and describe their duties. If you live in a town, mention town officers and describe their duties. What form of local government exists intermediate between a city and a town?

10. What connection can you trace between the State of Ohio and the Connecticut school system?

ENGLISH LITERATURE.

1. To what historical period does each of the following authors belong: Caedmon, Chaucer, Sir Thomas Moore, William Dunbar, John Skelton? Give an account of one of them. Mention the principal writings of each.

- 2 (a). I schal tell, as I have herd,
Of the byshop Saint Roberd;
His to-name is Grosseteste
Of Lyncolne, so seyth the geste:
He loved moche to here the harpe,
For mannes wit it makyth sharpe;
Next hys chamber, beside hys study,
Hys harpers chamber was fast by.

ROBERT DE BRUNE. (*14th Century.*)

Give the meaning of the above in Modern English.

3. Name five of Shakspear's plays. Give an outline of one.
4. Sketch briefly the life of John Milton. Mention his principal works.
5. Mention five prominent American authors and characterize the writings of each.

GENERAL HISTORY.

1. Give an account of the struggle for supremacy between Athens, Thebes and Sparta.

2. Origin of the Turks. Their appearance in Europe and the preceding struggles.

Sketch briefly the career of Charles Martel.

3. What is meant by "Federal Union"? Describe the attempts, successful and unsuccessful, to form such unions in Greece, Rome and among nations of Teutonic origin.

4. (a) The rise of Spain to power.

(b) Most prosperous period.

Connect her history with that of (c) England, (d) France, (e) Germany, (f) United States.

5. The origin, principles, history, and leaders of political parties in the United States.

NORMAL SCHOOL

ENTRANCE EXAMINATIONS.

1887.

ARITHMETIC.

I.

1. What do I gain by buying a lot of land containing $17\frac{1}{2}$ acres for \$.90 per sq. ft., and selling for \$750000?
2. What is the difference between $\frac{7}{9}$ of 1 cord, and $37\frac{1}{2}\%$ of 100 cu. ft.?
3. Change to a common fraction $.064\frac{2}{3}$.
4. A man sold two boxes of goods at \$75 each. On one he gained 10%, on the other he lost $16\frac{2}{3}\%$. What was the cost of each?
5. Change 5 rds. 1 ft. to a decimal of a mile.
6. If it costs 75 cents to have a cord of wood sawed so as to change each stick into 2 parts, what should be the cost of sawing so as to change each stick into 3 parts?
7. When it is midnight at Boston $71^{\circ} 3' 30''$ W., what time is it at X, $60^{\circ} 42' E.$?
8. The interest on a certain principal for 2 yrs. 6 mos. at 3% is \$76.50. What is the principal?
9. Square 16.8.
10. What time should 8 men take to perform a piece of work which 5 men can do in 4 days?

II.

1. Divide sixteen and eight one-thousandths, by one hundred three ten-thousandths.
2. Change $17\frac{3}{8}\%$ to a simple fraction.
3. Extract square root of 271.2609.
4. A man bought 9 gals. 3 qts. of oil for \$4, and sold it at 6 cents per pint. How much did he gain?
5. I have spent $\frac{7}{10}$ of my money and $.41\frac{2}{3}$ of it, and have still \$21.42. What sum had I at first?
6. At \$70 per acre, what will be the cost of a lot of land 76 ft. long by $3\frac{1}{2}$ rds. wide?
7. Change 5 cd. ft., 10 cu. ft. to a decimal of a cord.
8. I sell an umbrella for \$6.50. Thereby I lose $12\frac{1}{2}\%$ of its cost. If I had sold for $16\frac{2}{3}\%$ more than cost, for what sum should I have sold?

9. I pay \$331 premium for insuring a building (this includes \$1 for cost of policy), at $\frac{3}{4}\%$. The building is worth 77000. For what part of its value is it insured?

10. A man bequeathed \$1150 to his two sons. To the younger he left \$200 less than to the elder. What sum did the elder receive?

GRAMMAR.

I.

1. Write a simple sentence, containing an adjective and an adverb phrase.

2. Give three examples in sentences of auxiliary verbs, and explain their uses.

3. Define and use in sentences a proper noun; a verb in the passive voice; an adverb of time.

4. Give two nouns having the same form for the singular and the plural number; two, having no singular; two, having irregular plurals.

5. Give the principal parts of *sit, drink, rise, swim, must*.

6. Correct the following sentences giving reasons for correction:

(a.) They thought it was me.

(b.) The book lays on the table.

(c.) The eldest of the two sons attends school.

7. Fill up the blanks below:

Snowbound, a by
Lowell, the has written
..... wrote a history of the United States.

8. Write a brief description of the town in which you live, its general appearance, industries, and noted persons.

II.

1. State the several offices of the different parts of speech, illustrating each.

2. What are the essential parts of a sentence?

3. Define and use in sentences: an abstract noun; a relative pronoun; a transitive verb.

4. Explain the difference in meaning between *I rode* and *I have ridden*; *May I go* and *Can I go*.

5. Mention three common errors in the use of language, correct the errors and give your reasons for the correction.

6. Write the possessive singular and plural of *child, thief, fox, sister-in-law*.

7. Fill up the blanks below:

Hiawatha, a by , the greatest English poet. Hawthorne, the , wrote

8. Write a brief description of the last school you attended, and of the method of studying grammar and language pursued there.

GEOGRAPHY.

I.

1. (a) Name the provinces of British America.
(b) What is the government of Canada?
2. What states and territories lie on the northern and western boundaries of the U. S. ?
3. What countries in Europe are in the same latitude as the New England States?
4. Draw map of South America ; show surface, drainage and political divisions.
5. For what is each of the following places noted? Sheffield, Belfast, Lyons, Lucerne, Quito?
6. What is meant by climate, and how is climate influenced?
7. (a) Name the continents in order of their size.
(b) Which continent has most deeply indented outlines?
8. What is the difference between Political and Physical Geography?
9. Name five islands of the South Pacific Ocean.
10. (a) What is the shape of the Earth?
(b) Give proofs.

II.

1. Of what does Political Geography treat?
2. Draw map of New England States and locate counties and large cities in Connecticut.
3. Name the water boundaries and indentations surrounding Asia.
4. How would you go by water from Constantinople to Calcutta?
5. Name the states on the left bank of the Mississippi. Give capital of each.
6. Locate and name some fact about each of the following: Rome, Berne, San Francisco, Hammerfest.
7. What is the largest river in Europe? Describe its course from source to mouth.
8. Name ten exports of South America.
9. Where, and on what river is Adelaide? Nankin? Benares? Irkoutsk? Florence?
10. What state is especially rich in iron? coal? fruit? tobacco? salt?

HISTORY.

I.

1. The discovery of the Mississippi.
2. Compare the French and English in America in 1750 as to,
 - (a) Numbers.
 - (b) Extent of claim.
 - (c) Character of settlers.
 - (d) Treatment of Indians.

3. The Connecticut Charter.

(a) How obtained.

(b) Attempt to take it away.

4. In which colony would you have chosen to live in the Colonial days? Give five reasons.

5. State which settlements were made from religious motives; which from commercial motives.

6. Had you been living in 1765, would you have sided with Patrick Henry or with Geo. Grenville? Why?

7. The history of Nathan Hale.

8. Since the Revolutionary War, what territory has the United States bought?

9. Give the principal events in the administrations of the following Presidents:

Jefferson, Jackson, Monroe, Pierce, Polk.

10. How are the laws made for the United States?

II.

1. Give some characteristics of the North American Indians. What is the present condition of the American Indian?

2. Give reasons why the Dutch made so few discoveries in the new world, and the Spaniards made so many.

3. If you were to have charge of the planting of a colony, what good things would you copy from the early founders, and what things avoid?

4. Name the thirteen original colonies, and state what people settled each.

5. Draw a map of Connecticut. Show on it the Saybrook Colony; Connecticut Colony; New Haven Colony.

6. Write two pages on the Virginian Colony.

7. Write of Benedict Arnold's connection with the Revolution, before and after his command at West Point.

8. How many and what states were carved out of the Northwest Territory?

9. What is a Civil War? Name the principal leaders on each side in the War of 1861.

10. What did these men do for our country;

Israel Putnam? Thomas Hooker? Daniel Webster? J. Q. Adams?

Wm. Lloyd Garrison?

AN ELEMENTARY TEXT-BOOK
OF
ANATOMY, PHYSIOLOGY AND HYGIENE,
INCLUDING
A SPECIAL ACCOUNT OF THE EFFECTS OF ALCOHOLIC LIQUORS,
STIMULANTS, AND NARCOTICS UPON THE HUMAN SYSTEM.

BY
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Teacher of Physical Science in the Connecticut Normal School.

Prepared and Published by Order of the General Assembly.*

NOTE.

An Act concerning Studies in Public Schools.

SECTION 1. Physiology and hygiene, relating especially to the effects of alcoholic liquors, stimulants, and narcotics on the human system, shall be taught as branches of study in the public schools, and persons desiring to teach in such schools shall, after June 1, 1887, be found qualified to teach said branches of study before receiving the certificate required by law.

SEC. 2. Chapter XVIII of the Public Acts of 1882 is hereby repealed.

—Chapter CXXVI, Acts of 1886.

This elementary text-book has been prepared in compliance with

*An Act to carry out the Provisions of the [above] Law concerning the Teaching of
Physiology and Hygiene.*

SECTION 1. The state board of education shall prescribe the text-books to be used in teaching physiology and hygiene as required by law; and shall prepare or cause to be prepared a text-book, and, if desirable, charts for such teaching, which text-book and charts shall be furnished to towns and school districts, for the use of scholars in the public schools needing the same, free of expense.

SEC. 2. The secretary shall take out a copyright for the State upon any text-book or chart prepared under authority of this act.

—Chapter CXXXIX, Acts of 1886.

* Copyright, 1887, by Charles D. Hine, Secretary of State Board of Education.

The following pages contain a brief account of the structure, activities, and care of the human system. This is presented in language that can be readily understood by children and in the form and order best adapted to objective teaching.

While the work is elementary in the sense that matters of merely professional importance or technically scientific interest are omitted, it will be found to contain all the essential facts of human anatomy and physiology accurately expressed. These are introduced in their special relations to the care of the human body, in order that the reasons for avoiding or following certain courses of conduct may be clear and naturally occur to scholars even without formal statement. Thus attention is constantly and pointedly turned to human hygiene—the preservation of health in such matters as are generally under the easy control of each individual, and to this the larger part of the book is devoted.

In the treatment of narcotics and stimulants the truth fully and fairly stated is relied on to remove ignorance and promote correct personal habits.

No special endeavor has been made to render the text interesting. An outline and guide is given. This will become attractive by illustration, experiment, and timely references to every day health. Suggestive illustrations and experiments are introduced but there is need of many more drawn from every source.

The accompanying diagrams are designed to represent the forms and relative positions of a few important organs of the human body. They are without the details of more complete pictures and on this account must be recognized as mere outlines. They are intended as copies for drawing lessons and therefore they have been made simple. Drawing will serve to hold the attention intently on the various parts of the object that is to be studied. It may be suggested that the teacher should draw the diagrams, or parts of them, on the black-board in the presence of the class, thus will be illustrated an orderly way of proceeding and other helpful suggestions can be given. For example, the proper proportions should be observed, the first lines may be light but the figure should be afterwards well brought out with heavy lines. There should be repeated drill in reading the drawings, that is, pointing out and in stating the full significance of the diagrams.

In physiology as in all branches of natural knowledge the method of experiment and illustration is the one road to interest and lasting impression. The scholar sees, notes the result, and finally states and learns the principle. Chemistry and physics are specially adapted to experimental teaching. While physiology is less so because the processes of the human system are hidden, there is no lack of opportunity for right methods. There may be observation and dissection of organic tissue. Every butcher's shop furnishes examples of all parts of animals which can be cheaply obtained. If in any locality these are lacking, the statements of the book can be verified and ideas corrected by manikin, charts, pictures, and diagrams. There are many useful books within the means of every district library which children will gladly read. The microscope, now within the reach of every teacher, opens a wide world of wonder and fascination. This objective which is truly scientific teaching, in connection with such aids as the ingenuity of every interested teacher can contrive, will give life to the outline here presented and make the knowledge real and valuable. It will not only satisfy the law or gratify the idle curiosity of eager and uneasy children, but quicken their minds, turn them in new directions, and lead to intelligent observation and investigation. We may fairly hope that this study thus pursued by all children in our public schools will carry into every household correct ideas concerning personal habits in dress and diet, ventilation, cooking, and similar matters, and thus promote health, and thrift, by means of right living.

BREATHING OR RESPIRATION.

INTRODUCTORY EXERCISE :

1. Let the pupils stand or sit erect with chins high.
2. Let all take a deep breath.

Notice. *a.* An effort is made.
b. The ribs rise.
c. The wall of the chest moves outward.
d. Air goes in through the nose or mouth.
e. The ribs fall.
f. The chest wall moves inward.
g. The air goes out.

Explanation.

1. The muscles between the ribs are moved by the will in this illustration.
2. These muscles raise the ribs, and thus carry outward the chest wall.
3. The atmosphere outside pushes air in to fill the lungs.

(The teacher will explain the use of the diaphragm in breathing.)

Illustration.

Represent a lung with a sponge. Compress it, and let it expand in the hand.

ANATOMY.

Draw diagrams of :

<i>Larynx,</i>	<i>Bronchial Tubes,</i>
<i>Windpipe,</i>	<i>Lungs.</i>

The larynx, windpipe, and bronchial tubes are made of membrane and cartilage. The larynx and the rings of the windpipe can be felt in the neck with the fingers.

All of these organs are lined with Mucous Membrane.

(The teacher will illustrate cartilage by showing the gristle of meat, and will point to the lining of the mouth as mucous membrane. The breathing organs of a sheep or some other animal may be obtained from a butcher.)

PHYSIOLOGY.

Purpose of Breathing.

We breathe in order to remove carbonic acid gas from the blood and to introduce oxygen.

Air is inhaled into the lungs.

There the oxygen of the air unites with the blood, which carries it to all parts of the body.

In the different parts of the body the oxygen thus furnished is built up into the various tissues.

When the oxygen of the tissues unites with the carbon of the tissues, as it does in a muscle when it contracts, carbonic acid gas is formed : this is not merely useless but is injurious and must be removed.

This carbonic acid gas is carried by the blood to the lungs and thence breathed out.

(The teacher will explain why carbonic acid gas and water are produced.)

Tissues.

Tissues are the various forms of animal matter of which the body is made.

(The teacher will give examples.)

Heat is produced according to the

Chemical Law.

Heat is produced by the chemical union of substances.

(Other illustrations of this law will be given by the teacher.)

Experiments.

1. Put some clear lime water into a tumbler. Breathe into it through a piece of glass tubing. The lime water will become white, which shows the presence of Carbonic Acid Gas.
2. Breathe upon a looking-glass. Notice the water.

HYGIENE.**Health Cautions.**

1. Practice for a few minutes every day filling the lungs with pure air by slow deep breaths.
2. Air should be inhaled through the nose, in order to warm it, to moisten it, and to remove dust from it before it reaches the throat.
3. Carbonic Acid Gas has a poisonous effect when inhaled.
4. Organic matter, which is also poisonous, is given off from the lungs and skin.
5. The air in the rooms in which we stay should be changed often. This is done by ventilation.

Aim in ventilating :

1. To remove the impure air.
2. To introduce pure air.
3. To avoid drafts.

When we breathe impure air :

- (a.) We cannot study well.
- (b.) We cannot think well.
- (c.) We feel restless and uncomfortable.
- (d.) Our heads may ache.
- (e.) Our bodies may become diseased.

Test.

If there are more than 6 parts of Carbonic Acid Gas in 10,000 parts of air it is unfit for breathing.

Put $\frac{1}{2}$ oz. of clear lime water into a 10 $\frac{1}{2}$ oz. wide-mouthed bottle full of air. If, when shaken, the lime water turns white, it shows the presence of more than 6 parts of Carbonic Acid Gas in 10,000 parts of air.

EATING AND NOURISHMENT.**WHY WE EAT.**

We eat to replace the parts of the body that have been used up in its activities, and to provide for growth.

INTRODUCTION.

Our food is mostly in a solid condition. In order that it may become a part of our bodies it must first get into our blood. The blood is in tubes called blood vessels made of thin membrane. Now the solid food

must be changed to a liquid condition, in order that it may pass through the membrane of the blood vessels in the walls of the digesting tube or alimentary canal.

The process of dissolving and otherwise changing the food so that it can pass from the stomach and intestines through their tissues into the blood, is called digestion.

Illustration.

Aim,—To illustrate how a solid can be passed through a thin membrane.

Take some rock salt and thin cotton cloth. Break the salt into fine parts, and then put the fine salt through a funnel into a bottle. Squeeze some water from a sponge into the bottle. Shake the contents of the bottle until the salt is dissolved. Pour the solution through the cloth. The salt is thus made to pass through the cloth.

Application.

The breaking of the salt illustrates the use of the teeth in breaking the food into pieces. The funnel corresponds to the pharynx and œsophagus. The bottle represents the stomach. The sponge represents the glands which furnish the stomach juice that dissolves the food. The cloth represents the separating membrane between the blood and the contents of the stomach and intestines.

ANATOMY.

The digestive apparatus consists of a single long tube, which begins at the mouth, passes down to enlarge into a bag, the stomach, from which it goes as a smaller tube to coil up in the abdomen, and finally to end at the anus. This tube is called the alimentary canal. With it as parts of the digestive apparatus are certain glands, some of them small and numerous in the walls of the canal, and others distinct and large, as the liver and pancreas. We may distinguish them as the

Principal Organs of Digestion.

Mouth with its Teeth and Salivary

Glands,

Gullet or Œsophagus,

Stomach,

Intestines,

Liver,

Pancreas.

Draw a figure of a tooth representing the *enamel*, the *bone*, and the *soft parts*.

A tooth may be compared to a glass jar of preserved fruit. As the glass jar protects the soft fruit, so does the glassy enamel protect the parts of the tooth which are not so hard. A crack in either glass or enamel will cause decay.

(Count the teeth in the mouth. The teacher will tell which are Incisors, Canine, Bicusps, and Molars; also explain the difference between the first and permanent teeth.)

Care of the Teeth.

1. Wash the teeth thoroughly with warm water and a brush after eating, after rising in the morning, and before going to bed; and at the same time remove food lodged between the teeth by means of a tooth-pick that is not hard.
2. Do not bite hard substances.
3. Avoid very hot or very cold food and drink.
4. Avoid strong acids.

(The teacher will explain why these things are hurtful.)

Draw diagrams of :

Œsophagus,

Stomach,

Intestines.

These parts are lined with mucous membrane.

The stomach has three coats:

1. The inside coat, or mucous membrane. This furnishes the stomach or gastric juice.
2. The middle coat is made of muscles passing in different directions. They keep the stomach moving when it contains food.
3. The outside coat, or serous membrane, is strong and smooth, and is used to prevent too much wear by rubbing on adjacent parts.

FOODS.

Varieties.

A potato with butter represents:

1. Starch food (containing much starch).
2. Fats.

An egg or a piece of meat represents:

3. Proteid food, containing a soft substance, like the white of the egg or the fiber of the meat.

A pinch of salt represents:

4. Mineral substances, which form a very small part of our food. They are in the other kinds of food. They are needed for making such parts of the body as the bones and teeth, and for other purposes.

(The teacher will give other examples of these kinds of foods, and will explain which contain nitrogen.)

PHYSIOLOGY.

Digestion of these Foods.

In the Mouth.

The food is cut and ground into pieces in the mouth by teeth, so that all parts can be more easily reached by the juices that dissolve them.

A juice in the mouth called saliva, supplied by glands, changes starch of food to sugar, which is more easily dissolved.

Gullet or Œsophagus.

The œsophagus is furnished with muscles, which force the food downward by squeezing it, as a large marble can be forced through the closed hand by pressing it with the fingers one after another.

In the Stomach.

A juice in the stomach, called the gastric or stomach juice, dissolves the proteid foods, and changes them into peptones, a form of proteid which diffuses easily through animal membranes. The muscles of the stomach move the contents about. By this movement, the food is more thoroughly mixed with the dissolving juice. The time needed for this part of digestion is from two to five hours.

In the Intestines.

The bile from the liver and the pancreatic juice from the pancreas are poured into the small intestine near the connection with the stomach. The pancreatic juice changes proteids into peptones, starches into sugars, and with the help of the bile, changes to emulsions the fats or oils,—that is, breaks them up into very small drops, which are mixed through the watery contents of the intestine.

(The teacher will explain emulsions.)

Absorption.

The useful part of the food is now liquid, and is ready to go into the blood through the membrane lining the intestines.

(The teacher will explain why the many turns of the intestines make them well fitted for their duty of absorbing food. Explain also the many projections called Villi, making the velvet-like lining.)

USE OF FOOD.

The use of food is to supply the loss involved in the activity of the tissues and also as a means of growth in the young. We know from experience that man does best on a mixed diet of proteids, starches, and fats.

HYGIENE.

Health Cautions.

1. Nothing except absolute necessity should be allowed to prevent us from regularly eating a sufficient amount of good food.
2. We should eat various kinds of food.
3. Our food should be prepared by good cooking.
4. We should eat properly, and at proper times.

Selection of Food.

In providing food take pains that it shall be—

- (a.) Nourishing.
- (b.) Digestible.
- (c.) Of good flavor.
- (d.) In a wholesome condition.

In selecting food—

1. Consider its uses.
2. Consider the occupation and the mode of living of the person to be fed.
3. Consider the season of the year.

Cooking Food.

1. Cooking softens food.
2. It swells and breaks up the structure of the food, and thus makes it easier for the dissolving juices to reach all parts of it. Starchy foods, such as potatoes and other vegetables, should be very thoroughly cooked.
3. Cooking also kills the parasites, such as the tapeworm larvæ of beef and pork, the trichinæ of pork, and to a considerable extent, the bacteria which are the source of many diseases.
4. It changes the composition of food in some cases.
5. It makes the food more agreeable.
6. Baking, boiling, stewing, and broiling are much better ways of cooking food than frying. The fat in frying should be very hot before the food is put into it.

Eating.

1. Eat a moderate amount, and slowly.
2. Chew the food into small pieces.
3. Swallow what food there is in the mouth before taking a drink of water or other liquid.
4. Eat at regular times.
5. Avoid nibbling between meals.

Meals.

In arranging meals, take pains to secure—

1. A proper combination of dishes, so that, in each meal, starches, proteids, and fats may each be fairly represented. The meal should not contain too much liquid. A large amount of broth followed by a like amount of watermelon is objectionable on this account, even though more solid food intervene. More than half a pint of water should not be drunk at a meal, and it should come as near the end of the meal as possible.
2. A proper succession of dishes or courses. In all cases, especially in states of exhaustion, it is desirable to begin a hearty meal with a hot, well-flavored broth or soup, not in too great quantity. This is to be followed by the more hearty portions of the meal, meat and vegetables. Sweet things may be eaten in moderate quantities at the end of a meal, but should never be eaten at any other time.

3. The proper distribution of meals in the day.
 - (a.) The times of taking food should be at regular hours. The heavier the meal the more absolutely should this rule be observed.
 - (b.) Water may be drunk in small quantities between meals as often as desired, but nothing should be eaten between meals.
 - (c.) Children and most grown people should have some food as soon as possible after rising in the morning. Children should not study before breakfast.
 - (d.) A regular lunch of food that is not sweet should be provided for children if the time between breakfast and the midday meal is long.
 - (e.) Children's meals should be of nearly equal weight, the supper a little the lightest.
 - (f.) The dinner, or heavy meal of the day, for adults may be either in the middle of the day or toward evening. For the majority of men who are occupied during the afternoon with absorbing business a dinner at night is preferable.
4. Salted meat and fish are inferior as food to the same material unsalted.

Cautions Regarding Digestion.

1. Digestion is made easier and appetite increased by resting a little before a meal.
2. Working immediately after a meal interferes with digestion.
3. The movement of the bowels should be attended to at a regular time every day. The effort should be made even if the feelings do not urge it. The habit may be formed in this way.

CIRCULATION.

ANATOMY.

The organs of circulation are :

Heart,	Capillaries,
Arteries,	Veins,
Containing Blood.	
Lymphatic Vessels, containing Lymph and Chyle.	

Draw a Diagram of the Heart.

(The teacher will show to the pupils the heart of an ox or some other animal which may be obtained from a butcher).

Heart.

The heart is about as large as a man's fist. It is situated a little towards the left of the middle line between the lungs. It is made mostly of muscle. Its covering is a serous membrane, whose use is to prevent too much friction.

The heart consists of four chambers, the right and left auricle and right and left ventricle. The auricles have thin and the ventricles have thick walls. The right auricle opens into the right ventricle and the left auricle into the left ventricle, but the right and left sides of the heart do not communicate with each other. The blood from the large veins is received into the right auricle, and passed into the right ventricle, which forces it into the lungs. The left auricle receives the blood from the veins of the lungs, and passes it to the left ventricle, which pumps it over the body.

(The Teacher will show what is meant by friction and why it should be prevented.)

Arteries.

The arteries are firm, elastic pipes, which conduct the blood *from* the heart to the different parts of the body.

Veins.

The veins are pipes which conduct the blood *to* the heart. They are provided with valves situated at short distances apart, and they are somewhat less elastic than the arteries.

Capillaries.

The capillaries form a network of small tubes about one three-thousandth of an inch in diameter, which go into almost every part of the body. They make the connection between the arteries and the veins.

Blood.

There are two parts in Blood :

1. The liquid, called Plasma.
2. Small round bodies, called Corpuscles.

Plasma.

The liquid part of the blood is a little more than one-half of its volume. The Corpuscles are scattered through the liquid. The liquid is colorless.

Corpuscles.

There are two kinds of Corpuscles :

1. Red Corpuscles.
2. White or Colorless Corpuscles.

Red Corpuscles.

Red Corpuscles are about one thirty-two-hundredth of an inch in diameter, and are more numerous than the White Corpuscles. Many of these bodies together give a red color to the blood : separate, they show an amber color.

Draw two figures of a red corpuscle,—a flat view and a cross section.

(Divide an inch into one hundred parts, in order to realize how small one thirty-two-hundredth of an inch is.)

In the composition of the red corpuscles there is an important substance called Hæmoglobin. This substance has the power of uniting readily with oxygen ; it thus takes oxygen from the lungs.

Its color.

When united with oxygen, Hæmoglobin, then called Oxyhæmoglobin, is bright crimson.

Without oxygen, Hæmoglobin is purplish red.

This is the reason why the blood in the veins which has lost its oxygen generally differs in color from that in the arteries.

White Corpuscles.

White corpuscles are about one twenty-five-hundredth of an inch in diameter. They change their shape, and thus move in a strange way.

Draw diagrams of white corpuscles.

(The teacher will tell the story of the Amœba.)

Valves.

Between the right auricle and ventricle there are three pointed flaps of membrane, which form the *Tricuspid Valve*.

Between the left auricle and ventricle there are two similar parts which form the *Mitral Valve*.

At the beginnings of the arteries there are crescent-shaped valves called *Semilunar*.

There are valves distributed along the veins, allowing the blood to flow through the veins only towards the heart.

(The teacher will explain the action of a valve by means of a door or a common pump.)

PHYSIOLOGY.**Uses of the Organs.**

The Blood is the carrying agent of the body. It carries oxygen, digested food, carbonic acid, water, and other substances.

The Heart is the muscular pump which receives and sends the blood all over the body.

The Arteries, Veins, and Capillaries are the pipes that conduct the blood.

The Capillaries are small, and run through all parts of the body, making a close network, and feeding the tissues.

The Pulse, which is the beat caused by the movement of the blood through the arteries, is generally repeated about seventy times a minute in a healthy person at rest. It differs greatly, however, in different persons.

Draw a diagram of the blood's course.

Illustration.

A rubber ball, with a tube inserted into its opening, can be used to show how the liquid is forced through the pipes by the contraction of the heart. If the tube be glass, and be drawn out fine in the middle by melting, an artery, a capillary, and vein can be illustrated.

(Teacher will review changes in blood under breathing and eating.)

Coagulation.

When blood is exposed to the air by coming out of a wound it coagulates or sets into a somewhat firm jelly called clot. This action stops bleeding from small wounds.

Lymphatics.

Lymphatics are a system of fine drains going to all parts of the body, and carrying the leakage from the blood-vessels back to empty into the large veins close to the heart. Those lymphatics that come from the wall of the intestine are made use of to convey some of the products of digestion, especially the fats, to the blood. These are called Lacteals.

HYGIENE.**Health Cautions.**

1. Bad air and poor food make bad blood.
2. In order that the blood may flow freely the dress should not be tight in any part.
3. The skin should be kept clean in order to keep the blood clean.
4. The skin should be kept uniformly warm. We catch cold when some parts are cooled too much, especially by drafts, by damp clothing, or by wetting the feet.
5. To stop bleeding, the part should be raised. Pressure should be made at the point of bleeding. Ice may be applied. If an artery has been cut pressure should be made between the wound and the heart, or if a vein is cut, then on the side of the wounds farthest from the heart.
6. Fainting is caused by a lack of blood in the brain. The person should be laid flat on the floor without pillows, and the feet elevated if necessary.

THE MOVING ORGANS, OR MUSCLES.

(All of the various movements of the body are performed by muscles.)

ANATOMY.

There are two classes of Muscles :

1. Voluntary Muscles, which are governed by the will.
2. Involuntary Muscles, which are independent of the will.

Voluntary Muscles.

Voluntary Muscles are composed of bundles of fibers. They are crossed by fine microscopic marks, which give them the appearance of being striped ; hence, they are sometimes called " Striped Muscles."

Involuntary Muscles.

Involuntary Muscles are also composed of fibres, but they are usually not striped.

Muscles are distributed to all parts of the body where motion is needed.

Tendons, or Cords.

Tendons, or Cords, are the tough strings which connect the muscles with the parts that are moved by the muscles.

(The teacher will obtain a piece of lean meat, as an example of muscle, also a leg of a chicken, to show tendons.)

PHYSIOLOGY.

Illustration.

Let the pupils clasp the hand around the large part of the forearm and feel the muscles shorten and thicken in the moving of the fingers of that arm.

Let the pupils then watch and feel the cords in the wrist.

Muscles have the power of shortening, and thus bringing the parts to which they are attached nearer together. This enables them to move the different parts of the body.

HYGIENE.

Exercise of the Muscles.

1. Exercise enlarges and strengthens muscles.
2. Exercise helps digestion.
3. Exercise makes the blood flow more freely.

Directions for Exercise.

1. Exercise should be taken regularly and at times when it may not disturb digestion,—neither just before nor just after eating.
2. All of the muscles of the body should be exercised.
3. Exercise should not be so severe as to strain the muscles.
4. Exercise should be taken, if possible, in the open air.
5. Exercise should be proportioned to the age and strength of the person, and should be increased gradually.
6. Some form of exercise should be chosen which is interesting and enjoyable.
7. Muscles should be given proper rest after exercise.

Varieties of Exercise.

The muscles of the arms, of the shoulders, of the chest, and of the abdomen should receive special exercise regularly. Muscles of the legs generally receive exercise enough in active persons without giving them special attention.

Let a certain number of movements in free arm gymnastics be practiced every day at school or at home.

These exercises should be so practiced as to bring into action all muscles of the body.

All out-door sports, if not too rough, are valuable for exercise.

In these exercises the movements should be made with energy and grace, but jerking movements should be avoided.

Cautions.

1. Avoid excessive exercise ; it may cause internal injuries.
2. Avoid hard lifting ; it may injure you for life. In lifting do not bend the back. Keep the back straight, with the arms held near the sides, and bend the legs with the knees well apart.

THE SKIN.

ANATOMY.

The two parts of the skin are :

1. The Corium.
2. The Epidermis.

The Corium.

The Corium is the under layer. It is composed of connective tissue, and contains some :—

Muscular Fibres,	Nerves,	Sweat Glands,
Blood Vessels,	Oil Glands,	Hair Sacs.

The Epidermis.

The Epidermis is the upper layer. It is composed of cells without blood vessels. Through it pass the small canals from the glands in the corium. The surface cells are dry, harder, and flat, and are being continually rubbed off. The under cells contain coloring matter.

Draw a diagram of a Section of the Skin.

PHYSIOLOGY.

The Uses of the Skin.

The skin serves :

1. As a protective covering.
2. As an organ of sense.
3. As an organ of excretion.
4. To an insignificant extent, as an organ of absorption.

HYGIENE.

Bathing.

1. The skin should be kept free from matters that it has given out, both in order that such matters may not be reabsorbed into the blood to poison it, and also that they may not become offensive to others.
2. Baths with warm water and soap should be taken, at least, weekly.
3. While cold baths may be beneficial in many cases, they ought not to be indulged in by delicate persons without the advice of a physician. Tepid baths, 84°-92° F., taken in a warm room, are generally safe and advantageous.
4. A brisk and thorough rubbing with a brush or coarse towel should follow the bath.
5. If the skin is cooled its blood vessels are contracted, and its blood is diverted to the internal organs.

Clothing.

1. Clothing is useful mainly to keep the heat within the body.
2. Clothing should be :
 - (a.) A poor conductor of heat.
 - (b.) Porous and loosely fitted.
 - (c.) Clean, well-aired, and dry.

Wool is a poor conductor of heat ; hence woollen clothes are warm. Cotton and linen clothes are cool, because cotton and linen are better conductors of heat than wool.

Cautions.

1. It is generally better to wear woollen garments next to the skin.
2. Clothes should always be changed if they become wet.
3. The underclothing absorbs disagreeable and poisonous matter given out by the skin and should be frequently washed.
4. The clothing next to the skin should be taken off on going to bed, and should be so placed that it will be perfectly dry and well-aired in the morning.
5. All garments should be supported from the shoulders, not from the waist.

THE KIDNEYS.

The kidneys are two rounded masses, situated one on each side of the spinal column, a little below the back of the stomach. They secrete urine from the blood ; this passes into the bladder and is thence discharged.

Urine is largely water holding in solution several salts, especially a compound of nitrogen called urea. If the urine is held too long in the bladder serious consequences to health may follow. The three important agents that sift out the waste products of the body and thus purify the blood are the lungs, the skin, and the kidneys.

NERVES.

By means of nerves we become acquainted with our surroundings and move among them.

ANATOMY.

The organs of the nervous system are:

The Brain,	Cranial Nerves,
The Spinal Cord,	Spinal Nerves,
	Sympathetic Nerves.

The Brain.

The two prominent parts of the brain are:

1. The Cerebrum.
2. The Cerebellum.

The Cerebrum.

The Cerebrum is in the upper and front part of the skull. It is made up of two halves, somewhat hemispherical in shape. On the outside there are depressions, called fissures, dividing it into convolutions. The outside is gray in color; the inside is white.

The Cerebellum.

The Cerebellum is much smaller than the Cerebrum, and is situated in the back part of the head below the Cerebrum.

Draw a diagram of the brain.

The Spinal Cord.

The Spinal Cord is a column of nerve matter boxed in the backbone, and extending to the small of the back. The column is almost completely divided lengthwise in the middle, so as to make two long parts. The inside is gray; the outside is white.

Nerves.

The nervous system is made up of :

1. The Nerve Fibers.
2. The collections of nerve cells, or Ganglia.

1. Nerve Fibres.

Nerve Fibers form the white matter of the brain and spinal cord, and make up the strings of nerves which extend with their branches into almost every part of the body. These proceed from the brain or spinal cord to the different parts.

- a. The Cranial Nerves are twelve pairs of nerves that go from the base of the brain, and are distributed over the face, head, and other parts of the body.
- b. The Spinal Nerves pass, in thirty-one pairs, from the Spinal Cord to different parts of the body.

2. Ganglia.

A ganglion is a collection of nerve cells, usually branching. The Brain and Spinal Cord constitute one large ganglion, but the different groups of cells of which this ganglion is made up are also spoken of as separate ganglia. There are many small ganglia scattered over the body in various places, as in the walls of the heart, in the abdominal cavity, in the posterior roots of the spinal nerves, etc.

PHYSIOLOGY.**Cerebrum.**

If the Cerebrum of a frog be taken out, the animal is still able to hop, swim, etc., but only does so when tickled, or otherwise directly irritated by some outside influence. Hence, from such and other evidence, it is believed that the Cerebrum aids us in all the ways in which we *know* and *will* things. If the brain is diseased, tired out, or fed with poor blood, we cannot think actively and correctly, or act properly.

Cerebellum.

When the Cerebellum has been removed from the brain of a pigeon, it has been observed that the bird is unable to control its movements; it staggers, for example, in attempting to walk. For this and other reasons, it is supposed that the Cerebellum regulates the carrying out of voluntary actions.

Reflex Action.

The head of a frog may be cut off, and yet the animal is capable of doing many acts. It will scratch its side when tickled. In these cases there is irritation upon the skin; nerves conduct the sensations to the Spinal Cord: that organ, by means of other nerves, causes the muscles to move. This is called Reflex Action. Habit makes voluntary action reflex.

The Spinal Cord.

The Spinal Cord is a long ganglion, which produces reflex actions and conducts nervous impulses up and down, to and from the brain.

Nerves.

The nerves act like telegraph wires. Some convey messages of sensation from sensitive organs, such as the eye or skin, to the brain or spinal cord, while others convey the nervous impulse from the brain or spinal cord, down to the muscles, causing them to contract. Therefore, there are two kinds of nerve fibers:

1. The Sensory, or Feeling Nerves.

2. The Motor, or Moving Nerves.

Each of the spinal nerves has two roots. One goes into the back part of the spinal cord. This is the sensory nerve fiber. The other comes from the front of the spinal cord. This is the motor nerve fiber. They unite and pass out of the side of the backbone as a single silvery cord.

HYGIENE.**Health Cautions.**

1. Impure or impoverished blood, resulting from bad air or bad or insufficient food or from the fault of other organs, such as the kidneys, heart, or stomach, will impair the power of the brain.
2. The brain should not be kept at work too long upon one thing without rest.
3. Recreation and sleep rest the brain.
 - (a). Different persons require different amounts of sleep. Children require more than adults.
 - (b). Regular hours of retiring and of rising should be observed, and the time allowed for sleep in each individual case should be such that the person will in general wake up about the time for rising without being called.
 - (c). While the temperature of the bed room should be low, it should not be uncomfortably so. The bed room should be well aired, dry, and if possible above the first floor.
 - (d). The bed clothing should be light, not warmer than necessary for comfort, and should be well aired daily.
4. "Worry," or anything that constantly depresses the feelings, seriously injures the brain and nerves, and, in that way, all parts of the body.
5. Exercise of its powers improves the brain; neglect in this direction will allow the brain to lose power.
6. We should not do hard mental work directly before eating, nor for a while after eating a hearty meal.
7. Headache, nervousness, disturbed sleep at night, loss of appetite, should, if home life be well-regulated, raise the question of too great mental strain at school, and the children should be relieved by shortening of hours or a vacation.

SPECIAL SENSES.**THE EYE.**

The eye is a photographing box, with a glass in front, which forms a picture on the back part of this box.

Illustration.

Let a convex lens be used to produce the picture of a candle-flame on a white surface. The candle must be held at a distance from the lens. The image will be produced on the surface, near the glass, in an inverted position. The lens in the eye forms the image in the same way.

ANATOMY.

The eye has three coats :

1. Sclerotic Coat.
2. Choroid Coat.
3. Retina.

The Sclerotic Coat is the outside white coating of the eye.

The Choroid Coat is the vascular coating inside of the sclerotic coat.

The Retina is formed by the spreading of the eye nerve over the inside of the back of the eye.

Parts through which the light passes :

1. The Cornea.
2. The Watery Humor.
3. The Lens.
4. The Glassy Humor.

The Lens.

Lines of light pass through the lens, and by it are made to meet in the back part of the eye. The collection of points where the lines of light meet makes the picture.

The Humors.

The Humors are clear substances which fill the space inside of the eye-ball.

The Cornea.

The Cornea is inserted in the front part of the sclerotic coat, and is clear, like glass.

The Pupil.

The Pupil is the round opening in the front part of the eye. The Iris by contracting and relaxing alters the size of the pupil and thus regulates the amount of light admitted. The color of the Iris is the color of the eye.

Draw a diagram of the eye.

HYGIENE.

1. Rays of light should not strike the eyes directly while they are being used in reading.
2. Avoid the practice of placing the eyes too near the object.
3. Do not use the eyes when the light is either dim or flickering.
4. The eyes should be kept clean by careful washing in warm water.
5. The nerves and muscles of the eyes should be rested. If they easily become tired, it is likely that there is some fault in the eyes, requiring the help of glasses, or some other treatment.
6. Do not read while lying down.
7. Headache is often a sign of trouble in the eyes.

HEARING.

SOUND.

Sound is a kind of motion capable of affecting the nerve of hearing.
Sound is caused by the vibration of some elastic body.

THE EAR.**ANATOMY.****The Principal Parts.**

The principal parts of the ear are :

- I. The Outer Ear.

II. The Middle Ear, or Drum, containing :

- (a.) The Drumhead.
- (b.) Chain of bones :
 - 1. Mallet.
 - 2. Anvil.
 - 3. Stirrup.

III. The Eustachian Tube, leading to the pharynx.

IV. A complicated sac enclosed in bone, to which the nerves of hearing pass,—the labyrinth or inner ear.

Draw a diagram of the ear.

PHYSIOLOGY.

The outer ear is perhaps slightly useful for collecting sound and directing it into the inner parts. When the vibrations of sound, conducted by the air into the ear, strike the drumhead, it is made to vibrate, and thence the vibrations are conducted by the bones to the inner ear.

The canal to the throat serves to let the air move into and out of the drum, and so keep it alike on the outside and inside of the drum-head.

HYGIENE.

1. The drumhead is a delicate and important membrane, and should not be treated rudely.
2. Blows upon the ear may break this membrane.
3. Hard things, like ear-spoons or twisted ends of towels, should never be put into the ear for cleaning it.
4. It is sufficient for cleaning the ear to use warm water as far as the finger can reach.
5. Nature clears out the inner ear by making a wax, which dries up and drops out in scales that are not noticed when the ear is healthy.
6. It is bad for the ear to have cold water get into it while bathing, or to have cold air blow continuously upon it.
7. Things which have lodged in the ear should be removed by using a syringe and warm water.

TOUCH, TASTE, AND SMELL.

SENSE OF TOUCH.

There is communication between the brain and the skin by means of the nerves. Thus the skin helps the brain perceive different pressures and different temperatures. This power varies in different parts of the body ; on the ends of the fingers the sense of touch is very delicate, while it is less so on the back of the hand or on the hip. The sense of touch should be carefully educated, that it may help as much as possible the sense of sight.

(The teacher will explain the helpfulness of this sense.)

SENSE OF TASTE.

By means of the tip of the tongue, pressure and temperature are strongly perceived. The power to taste is stronger on the back part of the tongue. Different parts of the tongue are affected by different tastes. Only those things affect the sense of taste that are soluble in saliva.

SENSE OF SMELL.

To the nose cavity extend nerves, which are affected by odors. Things must be capable of a vapor condition or very fine division in order to affect these nerves.

(The teacher will give account of the power of this sense in other animals.)

BONES.

In the human skeleton there are 206 bones, distributed as follows :

- I. Head :
 1. Skull, 8 bones.
 2. Face, 14 bones.
 3. Ears, 6 bones.
- II. Trunk :
 1. Spinal Column, 26 bones.
 2. Ribs, 24 bones.
 3. Hyoid bone, 1 bone.
 4. Sternum, 1 bone.
 5. Hip, 2 bones.
- III. Limbs :
 1. Upper limbs, 64 bones.
 2. Lower Limbs, 60 bones.

(The teacher will show a few bones illustrating different shapes. The backbone of a fish should be shown.)

COMPOSITION OF BONES.

Bones are composed of two parts :

1. Animal part.
2. Mineral part.

If a bone be put into diluted hydrochloric acid, and allowed to remain for some days, the mineral matter can be dissolved. The animal part remains and can be bent, even into a knot. On the other hand, the animal part can be burned out by a fire, so as to leave only the brittle mineral matter.

USE OF BONES.

Bones make up the framework of the body. They are stiff and strong, serving as levers and fulcrums, acted upon by the muscles.

In childhood the bones contain a greater proportion of animal matter than later in life; hence, they are not so easily broken. In old age the mineral matter is increased, and the bones are liable to break from slight violence.

A very dense and tough membrane surrounds the bones, and through it they get most of their nourishment. This is called the Periosteum.

Draw diagrams of a bone, showing the sections of Haversian canals and the system of circulation.

(The teacher will explain Haversian canals.)

HYGIENE.

1. Avoid deforming the bones, in early life especially, by wrong attitudes, by careless use, and by tight dressing.
2. Bones should not be wrenched nor used roughly so as to break them, or put them out of place, or "out of joint."

DISEASE.

The body is a very complicated machine, and like other machines it is liable to get out of order. It has, however, to an extent differing in different individuals, the peculiar power of mending itself, provided that favorable conditions of life are granted, such as good air, wholesome food, plenty of proper exercise, and rest from strain or over-work. If we do not feel well it is much bet-

ter to take care to live wholesomely than to dose ourselves with drugs. Some of these in serious disorders are very helpful, when used under the advice of a skillful physician, but people who are constantly taking medicine according to their own fancies are meddling with their bodies very recklessly. They act just as foolishly as a little boy would who undertook to mend a watch.

Germ of Disease.

It is generally believed that most of the contagious diseases of men and animals are caused by minute forms of animal or vegetable life called Microbes, or Bacteria. These forms or their spores are so small that it would take many millions to make up the bulk of a grain of sand and are very numerous. They may exist in the air that we breathe, in the water that we drink, and in the food that we eat. The fine dust from the ground containing these germs of disease is scattered far and wide and may get into our mouths and lungs. Filth is favorable to the development of these germs, and it is very important to keep things clean wherever we stay. Our cellars, yards, drains, and other places must be constantly watched and kept free from decomposing matter. So much water is full of these disease germs that we ought to be especially careful about the water we drink and about the ice which we put into it. If we suspect the water we should boil it so as to kill the bacteria. Boiling will generally kill disease germs, but freezing will not.

EFFECTS OF ALCOHOLIC LIQUORS, STIMULANTS AND NARCOTICS, ON THE HUMAN SYSTEM.

What are Alcoholic Liquors, Stimulants, and Narcotics?

Alcoholic liquors are various liquids containing different quantities of alcohol, which are used as medicine and as common drinks or beverages.

Stimulants are those agents that excite the parts of the body to greater action.

Narcotics are those agents that produce drowsiness or sleep.

Common Alcoholic Liquors.

The alcoholic liquors, that are commonly used, are :

DISTILLED LIQUORS	$\left\{ \begin{array}{l} \text{Whisky,} \\ \text{Rum,} \\ \text{Brandy,} \\ \text{Gin,} \end{array} \right\}$	45 to 70 per cent. of alcohol.
	Various Wines.	5 to 17 per cent.
MALT LIQUORS	$\left\{ \begin{array}{l} \text{Ale and Porter,} \\ \text{Lager Beer,} \end{array} \right\}$	4 to 8 per cent.
	Cider,	up to 10 per cent.

(The teachers will show alcohol and will illustrate its properties.)

Alcoholic Liquors as Medicine.

Sometimes small doses of alcohol may apparently do the work of ordinary food. The food value of alcohol, however, is so small that it becomes important only in cases of continued weakness.

It may sometimes be necessary to give strong alcoholic liquors for faintness, for collapse, or for some other alarming conditions of brief duration.

In certain long continued and weakening diseases, where there is a turning away from food, alcoholic liquors have the power of quickening the appetite and aiding digestion. It thus becomes possible, by means of alcohol, to feed the patient at a time when above all things it is necessary that he should be well fed.

Alcoholic liquors should never be used as medicine without the advice of a reliable physician.

Evil Effects of Alcohol.

Having indicated some ways in which alcohol is useful, we may now point out its evil effects.

Intoxication and Drunkenness.

Everyone knows that there are immediate effects of drinking liquors which produce the condition called intoxication.

Examples are too common which show that alcohol causes persons to lose partial control of their muscles, to become temporarily silly or insane, so that in some cases they do horrible deeds of violence, and finally become pitifully unconscious. Much unhappiness of families and a great many crimes are the direct results of drinking alcoholic liquors.

A large amount of liquor taken at one time not only produces intoxication and a temporary form of insanity, but sometimes so overpowers the system as to cause death.

The Fatal Dose.

The fatal dose is estimated as equivalent to from two and one-half to five ounces of pure alcohol for an adult.

The Habit.

One of the most important things to think of, especially in early life, is the formation of habits. It is a law of our nervous system that repetition makes the doing of things easier. We must, therefore, guard ourselves against bad habits. This habit of taking a drink of liquor can be easily avoided at first, but when it is once formed it may require a severe and painful struggle to get free from its control.

Continued Use of Alcoholic Liquors.

We must distinguish between the immediate effects of a single large quantity of liquor and the results of a habit of drinking too freely carried on for a long time, and perhaps never producing anything approaching intoxication. Because a person who drinks liquor was never intoxicated, it must not be thought that he is free from its evil effects.

The possible effects of long continued use of alcohol are many and serious.

Effects on the Digestive System.

Alcohol is apt to produce an inflammation of the stomach and of the intestines, with the resulting indigestion, diarrhoea, and vomiting.

The liver may become inflamed and permanently changed in its tissues, producing the diseased condition called cirrhosis with the resulting dropsy of the abdomen. These results seem to be most readily produced by strong drink taken on an empty stomach. The liver cells themselves may become fatty and undergo other forms of change to a bad condition.

Effects on the System of Circulation.

The heart may undergo a change to a fatty condition which may result in sudden death, because the heart stops its beating.

Parts of the arteries which hold the blood are apt to change so that they break and let the blood escape into the brain and elsewhere. Some general troubles, as excess of fat, and gout, and certain forms of a dangerous disease of the kidneys, called Bright's disease, depend to some extent on the habitual use or abuse of alcoholic liquors.

Effects on the Nervous System.

The nervous functions are most strikingly and seriously affected.

In the nerves themselves we have a changed condition causing paralysis. Various unfavorable changes take place in the brain and spinal cord; epilepsy is developed in some cases; the various forms of insanity in others.

Paralysis is a diseased condition in which in some part of the body there is a loss of motion or of feeling, or of both.

Epilepsy is a condition attended with terrible fits in which the patient is unconscious and violent.

Attacks of an affection called *delirium tremens*, are produced by long continued excesses. In these the patient thinks he sees horrible sights, as of monsters, and sometimes thinks he hears horrible sounds. These waking dreams continually change from one terrifying form to another; in addition there is violent trembling and inability to sleep and no desire for food. Such attacks last from three days to a week or more, and sometimes cause death.

Prevention of Intemperance.

Much intemperance arises from the use of alcohol to relieve the results of physical and mental overwork or worry. We must recognize that when there is a craving for alcohol to afford such relief, it is time for rest. A man should not willingly remain in a condition where it seems to be a help for him to take alcohol. The avoidance of the strain is an important way of reducing the use of alcohol. All proper forms of recreation and social pleasures favor this; everything which for the evening, the holiday, or the vacation will relieve the mind from the thoughts and worries of the working hours.

Then the meals may by proper knowledge and care be made inviting, so that alcohol shall not be thought necessary for appetite or digestion. How much the drinking of the country depends on the eating is not sufficiently realized. Much of the temptation to take alcoholic liquors might be prevented by skill and care in selecting and preparing food and in planning meals.

Tobacco.

Tobacco does less harm to adults and is of less use than alcohol.

That it affords a certain sense of ease and rest is unquestionable, and if it ever does good it is in this way. It affects principally the nervous system; its habitual use increases nervousness, and this is especially apt to affect the heart, sometimes giving rise to alarming throbbing. Its mischievous effects are so well known that its use is forbidden to persons training for athletic exercises.

Growing boys are especially liable to its worst effects.

Chloral, Opium, Morphine, etc.

Chloral, opium, morphine, laudanum, and paregoric are never to be taken without a physician's order. The danger from them is greater than from alcohol. They should be in no sense home remedies. Soothing syrups usually contain opium or some other dangerous narcotic.

Tea and Coffee.

Tea and coffee are also stimulants, not so enslaving and not so damaging as alcohol, and yet not without their dangers. From the abuse of them springs more or less nervousness, indigestion, and headache.

Coffee affects different people very differently. With some it produces little or no effect; others it makes dizzy and nervous.

We may lay down this rule: if coffee does not produce any unpleasant nervous symptoms following its use, if it does not prevent sleep at night, if its discontinuance does not produce headache or other unpleasant effects, then it may be safely, and if it adds to the breakfast, advantageously used.

Very many people, especially poor people, drink large quantities of tea instead of taking proper food. The tea quiets the appetite and stimulates and sustains them for the time being, but it leaves the body starved. The tea drinking habit makes poor blood and causes nervousness and dyspepsia. It is a great and wide-spread evil. Neither tea nor coffee should be given to children. They are especially liable to the worst effects of these drinks, and to form the habit of taking them instead of nourishing food. Numerous disorders, the result of imperfect nutrition thus produced, are familiar to physicians.

Cocoa and its preparations, chocolate and broma, are less stimulating and more nutritious than tea and coffee, and may often be usefully substituted for them when a warm and comforting drink is wanted. Broma and cocoa are less liable to give rise to indigestion than strong chocolate.

PRONOUNCING LIST.

Ab-dō'-men.
 Ab-dōm'-in-al.
 Al-co-hol'-ic.
 Au'-ri-cle.
 Bac-tē'-ri-a.
 Bi-cus'-pid.
 Bro'-ma.
 Bronch'-i-al (Brōnk-ĭ-al).
 Ca-nīne'.
 Cap'-il-la-ries.
 Car'-tī-lage.
 Cer-e-bel'-lum.
 Cer'-e-brum.
 Chlo'-ral (Klō-ral).
 Chō'-roid (Kō'-roid).
 Cir-rhō'-sis (Sĭr-rhō'-sis).
 Cō'-coa (Kō'-kō).
 Cor'-ne-a.
 Cor'-pus-cle (Kor'-pus-sl).
 Crā'-ni-al.
 Der'-mis.
 Di'-a-phragm (Dī'-a-fram).
 Dys-pep'-si-a.
 E-mul'-sion (E-mul'-shun).
 Ep-ĭ-der'-mis.
 Ep'-i-lep-sy.
 Eu-sta'-chi-an (Yū-stā'-ki-an).
 Fūl'-crum.
 Gan'-gli-on (Gang'-glĭ-on).
 Hæm'-o-glō-bin (Hem'-o-glō-bin).
 Hă-ver'-sian (Hă-ver'-shan).
 Hū'-mor.

In-cĭ'-sor.
 Lac'-te-al (Lak'-te-al).
 Lăr'-ynx Lăr'-inks).
 Lym-phat'-ic.
 Mĭ'-tral.
 Mō'-lars.
 Mor'-phine (Mor'-fin).
 Mō'-tor.
 Mū'-cous.
 Nar-cōt'-ic.
 Œ-soph'-a-gus (E-sōf'-a-gus).
 Ox'-y-hæm-o-glo'-bin.
 Pan'-cre-as (Pang'-kre-as).
 Pa-ral'-y-sis.
 Par'-a-site.
 Pep'-tōne.
 Per-ĭ-os'-te-um.
 Phăr'-ynx (Făr'-inks).
 Plās'-ma.
 Prō'-te-ĭd.
 Ret'-ĭ-na.
 Să-lĭ'-va.
 Sal'-ĭ-vă-ry.
 Scle-rot-ic (Skle-rōt'-ic).
 Sĕn'-so-ry.
 Spĭ'-nal.
 Trĭ chĭ'-næ (Trĭ-kĭ'-nē).
 Trĭ-cusp'-id.
 Ū'-re-a.
 Ū'-rine (Yū'-rĭn).
 Ven'-tri-cles.
 Vil'-li.

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EXPERIMENTAL LESSONS IN SCIENCE.

CONTENTS.

LESSONS ON :—

THE CANDLE FLAME.

OXYGEN.

CARBON.

HYDROGEN.

CARBONIC ACID GAS.

LIQUIDS.

GASES.

MAGNETISM.

FRICTIONAL ELECTRICITY.

GALVANIC ELECTRICITY.

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A. B. MORRILL.

NOTE.

The aim of these lessons is to help teachers. It is presumed that the need of observation work in Grammar School grades is recognized, that the value of experimental science for this work has been appreciated, and that the method of doing the work has been studied. The purpose is to elucidate the preparation of simple apparatus and the manipulation in a course of fifty easy experiments. The topics are common but important.

Should this attempt prove fairly successful, it will be followed by a continuation of the work on topics from the science of sound, light, heat, steam engine, force and motion.

A. B. MORRILL.

NEW BRITAIN, CONN.,

May, 1887.

Lessons on the Candle Flame.

There are three parts in a candle flame, as follows:

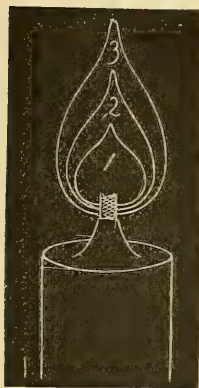


FIG. I.

1. Interior filled with gas which is composed of Hydrogen and Carbon.

2. Place where Hydrogen unites with Oxygen of the air, forming water. Carbon is here set free and is heated so as to give out light.

3. Place where Carbon unites with Oxygen of the air forming Carbonic Acid Gas.

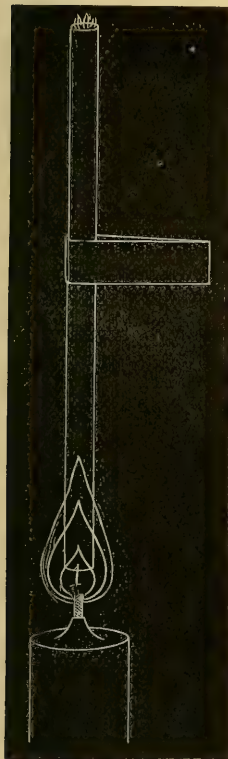
1. LESSON.—There is gas inside of the flame.

FIG. II.

EXPERIMENT.—Take a piece of glass tubing, 10 inches long, 1-4 inch in diameter inside. Put one end, holding the tube vertical, into the upper part of the place in the flame, marked 1. The gas will rise through the tubing and can be ignited at the upper end. The tubing can be held by wrapping a narrow strip of paper around it. Repeated trial may be necessary in order to hold the tubing steadily enough. Brace the arm against the body.

2. LESSON.—There is free Carbon in the luminous part of the flame.

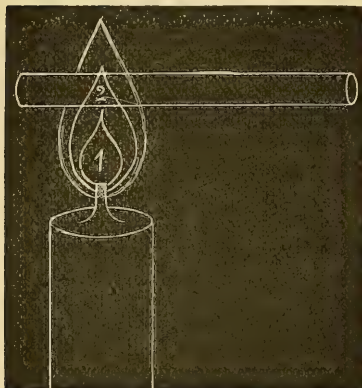


FIG. III.

EXPERIMENT.—Put a small piece of glass tubing across part 1; then across part 2. In the latter case soot or carbon will be deposited upon the glass.

This experiment should be emphasized as illustrating the principle of the common sources of light, namely: *A solid is heated so as to shine.* This principle is forcibly exemplified in the electric and lime lights.

3. LESSON.—The wick draws the liquid part of the candle upwards.

EXPERIMENT.—Put a spoonful of water colored with ink into a watch crystal, or saucer. Touch the lower surface of a lump of sugar to the liquid. The latter will rise through the pores of the sugar, being drawn by that form of adhesion called *capillary attraction*.

4. LESSON.—Water is formed by a burning candle.

EXPERIMENT.—Hold a cold, dry wine glass, or goblet, over a candle flame. Water will be deposited upon the glass. The glass must not be held long enough to be heated so as to evaporate the water.

5. LESSON.—Carbonic Acid Gas is formed by a burning candle.



FIG. IV.

EXPERIMENT.—Take a piece of iron wire about 15 inches long. Bend 1 inch of the wire upward. Stick the point of the bent end into a piece of candle 1 inch in length. Ignite the candle and lower it into a fruit jar. Place a piece of glass, or some other cover over the mouth of the jar. The candle flame will gradually go out. Pour into the jar, after removing the candle, a little clear lime water. The lime water will be turned milky white, showing the presence of carbonic acid gas. This gas always turns lime water white.

Prepare the lime water by allowing a piece of common lime, as large as a hen's egg, to remain in a quart of water for three or four hours; then filter the liquid through filter paper placed in a funnel. Bottle the clear liquid and keep for future use.

6. LESSON.—A supply of air is necessary to sustain a flame.

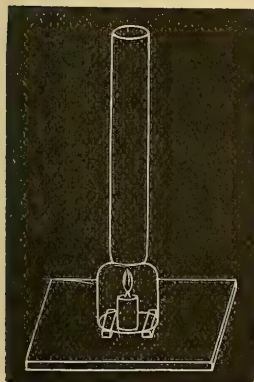


FIG. V.

EXPERIMENT.—Put a small piece of candle on the table. Ignite the candle and put over it a student-lamp chimney. The flame will go out. Ignite again, and place two matches under the chimney so as to leave an opening. The candle will continue to burn. This illustrates the need of draught.

Lessons on Oxygen.

7. **LESSON.**—Oxygen is a gas, colorless, and odorless. It may be obtained by heating Potassium Chlorate and Manganese Dioxide.

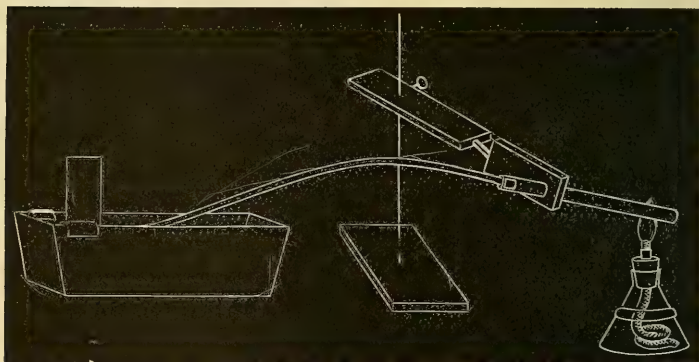


FIG. VI.

EXPERIMENT.—Mix a teaspoonful of Potassium Chlorate with an equal quantity of Manganese Dioxide. Put the mixture into a 6-inch test tube. Put the tube into the holder (Fig. VI.) Fit a stopper into the test tube. The stopper should have a hole through it, with two inches of glass tubing inserted. Attach to the glass tubing 18 inches of rubber tubing. Procure a rubber stopper, with a hole in it, at the druggist's. A cork can be used but rubber is preferable and can be used for other experiments.

The gas must be collected over water. Procure, at a "ten cent store," a bread pan. Fit a shelf of zinc, 2 inches wide, $1\frac{1}{2}$ inches below the upper edges of the pan. This shelf can be hung by bending the ends of the zinc strip over the edges of the pan. Use mustard or similar bottles for holding the gas. Pieces of glass, for covers, can be obtained at a store where window glass is sold. Fill the pan with water. Fill a

bottle with water, by placing it upon its side within the pan. Invert the bottle and place its open end upon the shelf, which must be about 1 inch below the surface of the water. Let a boy hold the bottle in this position. Now incline the test tube containing the mixture towards the pan. Put the free end of the rubber tubing, under the surface of the water, into the mouth of the inverted bottle. For this purpose, either there must be a hole in the shelf, or the mouth must project over the edge of the shelf. Now gradually heat the test tube with an alcohol lamp, by moving the flame along the side of the tube. Heat so that the gas may come from the upper part of the mixture first. An alcohol lamp can be borrowed from a druggist, or can be made by fitting a stopper, with a piece of tubing through it large enough for a wick, into a mucilage bottle. Be sure that the powders are pure when they are purchased. They must be free from pieces of paper, wood, or other foreign substances, especially the black powder. Heat a little of the mixture in a spoon for trial. There should be no explosive effect. After filling the bottles successively with gas, put glass covers over their mouths, and remove them from the pan, keeping them covered until used. After the gas ceases to come off, be sure to remove the end of the rubber tubing from the water, so that the water shall not flow into the cooling test tube and crack the glass. The test tube can be washed when cooled.

8. LESSON.—A candle will burn better in oxygen than in air.

EXPERIMENT.—Fix a piece of tallow candle* upon the holder, as in Fig. iv. Ignite, and after allowing the candle to burn a few minutes, extinguish the flame so as to leave a spark. Lower into a bottle of oxygen and the spark will burst into a flame. Be sure to leave a spark. A tallow candle is preferable on account of its large wick.

* A small wax taper, like those used on Christmas trees, is very convenient for this experiment.

9. LESSON.—Steel or iron will burn in oxygen.

EXPERIMENT.—Cut a circular piece of wood large enough to cover the mouth of a bottle. Insert a piece of watch-spring through the middle of the cover. Pulverize a small piece of sulphur. This is better than flowers of sulphur. Heat an end of the watch-spring; touch it to the sulphur, ignite and put it into the oxygen. The sulphur will first burn with a blue flame, and then the iron will burn with bright sparks. Care must be exercised to have enough sulphur on the watch-spring, otherwise the steel will not burn. Similar experiments can be done with a piece of bark and with zinc.

Lessons on Carbon.

Show to the class different forms of carbon, as

CHARCOAL,	DIAMOND,
ANTHRACITE COAL,	GRAPHITE,
BITUMINOUS COAL,	COKE,
LAMPBLACK,	GAS CARBON.

10. LESSON.—When organic matter is heated in a partially closed place, gaseous matter is driven off and carbon remains.

EXPERIMENT.—Put some wood shavings into a test tube. Put the stopper having about five inches of glass tubing through it, into the test tube. Heat gradually, and gas will pass off that can be made to burn at the end of the tubing. Charcoal will remain.

11. LESSON.—Illuminating gas is obtained from bituminous coal.

EXPERIMENT.—Repeat the preceding experiment with cannel coal. Notice the coal tar in the test tube.

12. LESSON.—Carbon is used to remove oxygen from the ores of metals.

EXPERIMENT.—Place a small quantity of lead oxide, or Litharge, as large as a pea, on a piece of charcoal. Direct the flame of the alcohol lamp upon the



FIG. VII.

oxide, by means of a blow-pipe. The material will be melted, and a globule of lead will soon appear. The oxygen has thus been taken from the compound by the carbon.

A blow-pipe can be made by taking 12-inch piece of glass tubing, and by melting a piece about three inches from the end; pull off the small piece, thus leaving a tapered end. Then heat another place, 3 inches from the tapered end, and bend the small part at a right angle to the long part.

13. LESSON.—Carbon can be used to absorb impurities.

EXPERIMENT.—Fix a filter paper into a funnel. Put into the paper $\frac{1}{2}$ pint of bone black. Color some water with ink and pour it through the carbon. After repouring a few times the liquid will come through clear.

Lessons on Hydrogen.

14. LESSON.—Hydrogen is obtained by putting together Zinc, Sulphuric acid, and Water.

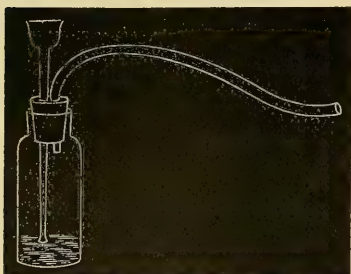


FIG. VIII.

A rubber stopper is preferable. Through the other hole put a 3-inch piece of glass tubing, to which attach the rubber tubing used in lesson 7. Cut some sheet zinc into pieces small enough to be put into the bottle. Let the zinc be about $\frac{3}{4}$ inch in depth. Pour in water to the height of about $1\frac{1}{4}$ inches. Gradually add sulphuric acid through the funnel tube until the gas comes off freely. If the gas fails to come off, see if there is a leak around the tubes. Pack with paper if they are loose. Shake the bottle slightly; add more zinc. Be sure that the rubber delivery tube be not bent or stopped in any way. In that case the liquid will overflow. The gas must be collected over water as in lesson 7.

EXPERIMENT.—Fit a stopper, with two holes through it, into a mustard bottle. Put through one hole a glass tube having a funnel top. Let it extend nearly to the bottom of the bottle. A funnel tube can be bought of the druggist. It will be needed for other experiments.



FIG. IX.

15. LESSON.—A candle will not burn in hydrogen, but the gas will itself burn.

EXPERIMENT.—Attach an inch piece of candle to a stick or wire; ignite, and raise it slowly into an inverted bottle of hydrogen. The flame will be extinguished, but will be rekindled on slowly withdrawing the candle. The gas burns at the mouth of the bottle.

16. LESSON.—Water is formed when hydrogen burns in air.

EXPERIMENT.—Procure a 4-ounce narrow-mouthed bottle.* Put into it the materials for preparing hydrogen. Fit a stopper with a 5-inch piece of glass tubing through it. Let the tubing be tapered at the upper end. This can be done by melting and drawing out. Wait five or six minutes after the gas has begun to be evolved rapidly, and then ignite the jet. Before doing this, wrap a towel or some thick cloth around the bottle to prevent the glass from flying in case that the bottle should burst. *This may happen if the air be not entirely driven from the bottle before the gas is ignited. Care must be exercised upon this point.* Hold a cold, dry wine glass or goblet over the gas flame and water will be deposited, as in lesson 4.

17. LESSON.—A hydrogen flame will produce sounds called “Hydrogen Tones.”

EXPERIMENT.—Procure a glass tube 12 or 18 inches long, $\frac{3}{4}$ inch in diameter. Place it over the flame as produced in the last lesson and tones can be heard. The pitch varies if tubes of different sizes are used.

*The bottle used in Exp. 14 will be suitable for this experiment, if it be furnished with a stopper having only one hole.



FIG. X.

Lessons on Carbonic Acid Gas.

18. LESSON.—Carbonic Acid Gas can be obtained from Marble.

EXPERIMENT.—Use the same apparatus as employed in lesson 14. Break marble into small pieces. Put them into the bottle and pour in a little hydrochloric acid. Prepare the gas in the same way as that in the preparation of hydrogen, excepting the marble and the acid.

19. LESSON.—A candle will not burn in Carbonic Acid Gas, neither will the gas burn.

EXPERIMENT.—Lower a small piece of lighted candle into a jar of this gas. The flame will be extinguished.

20. LESSON.—Carbonic Acid Gas will turn lime-water milky white.

EXPERIMENT.—Pour some clear lime-water into the gas. The liquid will be turned white.

21. LESSON.—We exhale the gas.

EXPERIMENT.—Breathe through a tube into lime-water. The liquid will be turned white.

Notice in these experiments that an excess of the gas in the liquid produces a clearness by causing the liquid to dissolve the white substance formed.

22. LESSON.—Water will take up this gas.

EXPERIMENT.—Fill a test tube half with this gas and half with water. Place the thumb over the open end and shake. The tube will remain upon the thumb. The water absorbs the gas and leaves a vacuum. The outside air presses on the tube and holds it upon the thumb.

23. LESSON.—Acids turn blue litmus and purple cabbage red.

EXPERIMENT.—Fill partially three test tubes with water. Drop a little acid into each. Use sulphuric and hydro-

chloric acids and vinegar. Drop litmus infusion into each acid. In each case a beautiful red color will be produced. The same result can be attained with purple cabbage infusion. Infusions can be prepared by mixing litmus, and by boiling purple cabbage with water.

24. LESSON.—Carbonic Acid Gas and water form an acid.

EXPERIMENT.—Put a piece of litmus paper into the liquid of lesson 22. After remaining a short time the paper will be turned red. Litmus paper can be bought, or prepared by soaking filter paper in litmus infusion and drying.

25. LESSON.—Carbonic Acid Gas is so heavy that it can be poured downward.

EXPERIMENT.—Ignite a small piece of candle, put it into a tumbler, and pour the contents of a bottle of carbonic acid gas upon the flame. It will be extinguished.

Lessons on Liquids.

26. LESSON.—Downward pressure upon liquids is communicated sidewise.

EXPERIMENT.—Get a tin salt sprinkler, $1\frac{1}{4}$ inches diameter, at a five-cent store. Punch two holes on opposite sides, half way down. Fill with water, and quickly press with the palm of the hand downward upon the open end.

Streams of water will spurt impulsively at each movement of the hand.

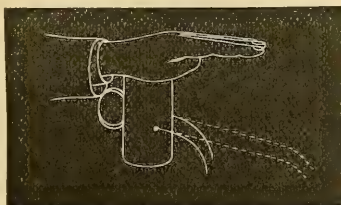


FIG. XI.

27. LESSON.—Downward pressure of liquids is transmitted upward.



FIG. XII.

EXPERIMENT.—Take a student lamp chimney. Cut a piece of zinc or brass large enough to just cover the large end of the chimney. Punch a hole through the metal and put a string through long enough to extend through the chimney. Hold the metal to the lower end of the chimney by means of the string. Put the chimney into a jar of water and drop the string. The metal will be held in place by the upward pressure of the surrounding water.

28. LESSON.—Pressure upon liquids is transmitted in every direction.

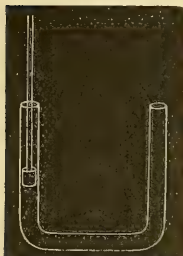


FIG. XIII.

EXPERIMENT.—Take a 12-inch piece of glass tubing, $\frac{1}{2}$ inch in diameter. Bend it, by melting, into the shape of the letter U, having the arms 4 inches long. Fit a piston into one arm so that it will move easily. Fill partially with water. Push the piston downward and the water will move sidewise and upwards.

29. LESSON.—This principle, illustrated in the preceding experiments, explains fountains, springs, city water system, etc.

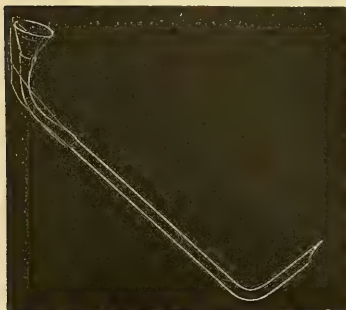


FIG. XIV.

EXPERIMENT. — Take an 18-inch piece of glass tubing. Taper one end. Bend about 3 inches as in Fig. xiv. Attach a small funnel by means of a piece of rubber tubing to the other end. Pour water into the funnel, and the downward pressure will force the water out of the small end in a stream like a fountain.

30. LESSON.—The same principle explains the Hydrostatic Press.

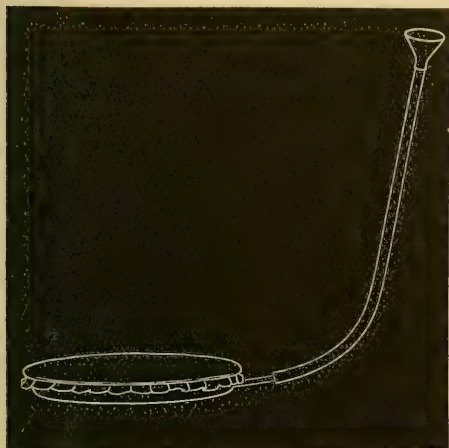


FIG. XV.

EXPERIMENT.—

Procure at a ten cent store a pan, circular in form, 1 inch in depth, 10 inches in diameter. Have the tinsmith fit a 3-inch tin tube, $\frac{1}{4}$ inch in diameter into the side of the pan. Attach about 2 feet of rubber tubing to this small piece. Fix a funnel to the other end. Cover the pan with sheet rubber. Tie the rubber

on very firmly. Have the tinsmith solder a piece of wire around the pan to prevent the string from slipping. Pour water into the funnel and place a large dictionary upon the pan. The heavy book can be raised with a small quantity of water.

31. LESSON.—Pressure can be exerted through a liquid to force water into a phial.



FIG. XVI.

EXPERIMENT.—Fill a mustard bottle almost full of water. Fill partially a small phial so that it will just float. Invert it in the large bottle. It will float in an inverted position. Cover the top with a piece of sheet rubber and tie it firmly. The rubber in all these experiments is such as dentists use. Press with the finger upon the rubber and the phial will descend. Water is forced into the phial and makes it heavier.

Lessons on Air.

32. LESSON.—Air occupies space.

EXPERIMENT.—Use the apparatus of lesson 14. Put the free end of the rubber tubing into a bottle half filled with water. Pour water through the funnel tube. Notice the bubbles of air escape through the water from the rubber tubing. Pinch the rubber tubing, and then attempt to pour water through the funnel tube.

33. LESSON.—Air presses upon things exposed to it.

EXPERIMENT.—The following experiments illustrate in different ways the pressure of air.

(a) Fill a wine-glass with water; place a card over the mouth and invert. The card will be held to the glass by the air pressure.

(b) Take a 10-inch piece of glass tubing. Put one end into water. Place the finger over the other end and withdraw the tube from the water. Some water will remain in the tube because the air presses. Remove the finger. The downward pressure of air equals the upward pressure, and force of gravitation pulls the water downward.

(c) Procure a small oil can at a five-cent store. Punch a small hole in the bottom. Put some water into the can and repeat the features of the preceding experiment.

(d) Fill a small phial with water and invert it. The water will be held in by the air.

(e) Cut a circular form, 4 inches in diameter, from a piece of sole leather. Put a stout string through the center. Soak in water, and press it with the foot upon the smooth surface of some heavy body like a stone. The object can be thus lifted.

(f) Fill a mustard bottle with carbonic acid gas. Pour in water to the depth of an inch. Put in an inch piece of caustic

potash. Cover the mouth with sheet rubber and tie it securely. Shake the bottle and the solution will absorb the gas so as to leave a vacuum. The outside air will press the rubber into the bottle.

34. LESSON.—Illustration of the Barometer.

EXPERIMENT.—Take a piece of glass tubing about 33 inches long. Close one end by melting. Fill with mercury by means of a small funnel fitted to the end with a piece of rubber tubing. Remove the funnel; place the finger over the end; invert, and put the open end into mercury in a saucer. If mercury can not be conveniently obtained, do the experiment with colored water. In this way the principle can be illustrated.

35. LESSON.—Illustration of the Pump.

EXPERIMENT.—Procure a student lamp chimney. Fit a stopper with a hole through it into the smaller end. Put an 8-inch piece of glass tubing through the stopper so that the end shall be even with the inner surface of the stopper. Make a small leather valve to cover the upper end of the tube. Fasten it to the stopper with a tack. Make a piston of wood to fit the chimney. Wind the large end with cotton winking. Make a gimlet hole through the large end and cover it, on the upper side, with another leather valve. In order to make the piston tight, some water may be poured in at the top of the pump.



FIG. XVII.

36. LESSON.—Air can be compressed.

FIG. XVIII.

EXPERIMENT.—Fit a stopper, with a piece of tapered tubing through it, into an 8-ounce narrow-mouth bottle. Put in some water. Blow into the bottle. The bubbles of air can be seen to rise through the water. On removing the mouth from the bottle, after blowing into the water, the expansion of the air will force the water out through the tube.

37. LESSON.—A ball is suspended by a stream of air.

FIG. XIX.

EXPERIMENT.—Put a pin through a pith ball as large as a cranberry. Insert the pin into the hole in a pipe stem, and then blow the ball upwards. The ball will be poised on the stream of air.

38. LESSON.—Illustration of an Air Gun.

EXPERIMENT.—Procure a bean blower. Blow a pea or bean. Show that the force of air in the mouth sends out the object.

Lessons on Magnetism.

39. LESSON.—A magnet attracts iron at its ends.

EXPERIMENT.—Get a common horse-shoe magnet and some iron filings or shavings at a machine shop. Put the magnet on the iron filings so that all parts touch them. The iron will cling only to the ends.

40. LESSON.—A magnet will attract only iron and nickel of the common metals.

EXPERIMENT.—Try zinc, tin, brass, lead, silver, etc., with a magnet.

41. LESSON.—A suspended magnet will point north and south.

EXPERIMENT.—Magnetize a sewing needle by rubbing a magnet along its length. Thrust the needle through a small piece of cork. Let the cork float on water and the needle will point north and south.

42. LESSON.—Like poles repel one another; unlike poles attract one another.

EXPERIMENT.—Place the north pole of the magnet, first, near the north pole of the needle and then, near the south pole. In the first case the end of the needle will be repelled; in the second it will be attracted.

43. LESSON.—Magnetism will be induced in a piece of iron by placing a magnet near it.

EXPERIMENT.—Place a magnet near a tack or small nail. The nail will attract another tack.

Lessons on Frictional Electricity.

44. LESSON.—Electricity can be developed by friction.

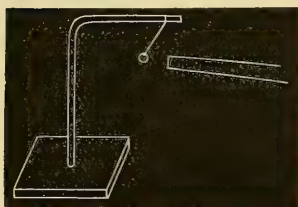


FIG. XX.

be first attracted and then repelled. A lamp chimney rubbed with silk can also be used.

The law,—“Bodies charged with like kinds of electricity repel one another; with unlike kinds, attract one another,” can be illustrated with this apparatus.

45. LESSON.—Electricity can be conducted.

EXPERIMENT.—Place a brass wire, 1-4 inch in diameter, about 18 inches long, with rounded ends, upon two glasses. Suspend from the end two pieces of pith by means of cotton thread. Put the electrified sealing wax near the other end. The pieces of pith will be separated. The electricity is conducted along the metal. Try a piece of glass tubing instead of a wire.

46. LESSON.—Illustration of an Electrical Machine.

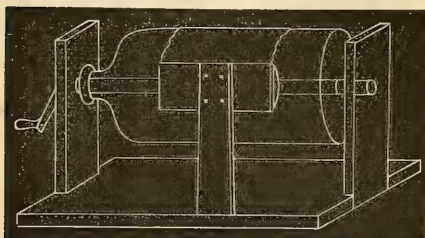


FIG. XXI.



FIG. XXII.

EXPERIMENT.—Buy a quart bottle with a narrow mouth. Get a machinist to drill a hole 1-4 inch in diameter through the bottom. This can be done with a hard drill by moistening it with turpentine. Make a wooden shaft, 3-4 inch in diameter, to pass through the bottle to the bottom. Cut another piece of the same diameter, 1 inch long. Bore a hole large enough for a long screw through the short piece and the end of the shaft. In this way fasten the shaft to the bottle, and have the short piece as an end projecting. Make a base and upright ends for the bottle to rotate in. Make a cushion by cutting a piece of wood 2 inches by 4, by putting hair on one side, and covering the whole with silk, leaving the end of the silk long enough to extend over the bottle. Fasten this cushion to the end of a piece of wood long enough to locate it opposite one side of the bottle. Fix this last piece by its free end to the base of the machine with a hinge.

Now make a conductor. Cut a piece of wood into the shape of Fig. XXII, 4 inches long, 1-2 inch thick. Round the corners and cover with tinfoil. Cut the heads from a dozen pins and stick them into the wooden piece so that their points can be placed opposite the bottle. Mount the wood upon a piece of glass tubing stuck into a wooden base. Shellac the ends of the bottle. Fit a crank to the end of the shaft. When operating the machine, hold the cushion to the bottle with the hand. A little amalgam must be spread on the cushion with lard. The amalgam can be made by melting a little mercury, zinc, and tin, or it can be obtained from the backs of old looking glasses. Be sure that all parts are dry and entirely free from dust.

Fine hemp can be made to rise by attaching it to a pin and fixing to the conductor.

Two pieces of pith can be made to diverge by suspending them from the conductor on the ends of cotton thread.

A spark 3-4 inch in length ought to be obtained in favorable weather.

47. LESSON.—Illustration of a Leyden Jar.

EXPERIMENT.—Obtain a thin tumbler made of good glass. Line it and cover it with tinfoil as far as 3-4 inch from the edge. Fit a circular piece of wood into the mouth of the tumbler. Put a brass shawl pin through the middle of the wood. Fasten a small (3 or 4 inches) piece of brass chain to the lower end of the pin. Charge the jar by holding the head of the pin near the conductor. A discharger can be made from a copper wire. Bend the wire into the shape of the letter V. Fit it into the end of a 10-inch piece of glass tubing by means of a wooden plug and sealing wax.

The Leyden Jar can be discharged by touching one arm of the discharger to the outside tinfoil and the other arm to the pin.

By the foregoing experiments the following topics may be emphasized:

Generation of electricity.

Conductors.

Insulators.

Points.

Induction.

Light, }
Heat, } from electricity.
Sound, }

Lessons on Galvanic Electricity.

48. LESSON.—Illustration of a Battery.

EXPERIMENT.—Take a pint fruit jar.* Cut a wooden cover, 1-2 inch thick, to cover the mouth. Cut a few strips of sheet zinc, long enough to reach the bottom of the jar and 1 1-2 inches wide. Pack them together and fit them into the cover. Get two electric light carbon pencils. Cut each into two pieces. Fit three pieces close together into the cover. The copper paint of the pencils must either be scraped off or dissolved by nitric acid.

* An 8-ounce bottle with either a cork or wooden stopper can be used for this experiment. Bore two holes through the stopper; into one glue a carbon pencil; through the other put a pencil of zinc that can be bought for 5 or 10 cents where electrical supplies are sold.

The following liquid is to be prepared and put into the jar.
Potassium Dichromate solution :—

2 oz. *Potassium Dichromate.*

2 oz. *Sulphuric Acid.*

Adding powdered Dichromate little by little until a paste is formed, to which is to be added, while stirring, until the whole is dissolved, one quart of water.

The carbon and zinc are to be put into the solution. The zinc should be amalgamated by first dipping it into water with a little sulphuric acid and then into mercury. The zinc should be kept out of the solution when not in use.

49. LESSON.—A current of electricity passing around a piece of wrought iron makes a temporary magnet.

EXPERIMENT.—Cut a piece of wrought iron wire, 2 inches long, 1-4 inch in diameter. Wind two layers of insulated copper wire around the iron. Connect one end of the wire with the carbon, the other with the zinc. The iron will attract tacks.

50. LESSON.—Illustration of the Telegraph.

EXPERIMENT.—Make a piece like Fig. xxiv. A represents iron posts, 1 1-2 inches high, wound with insulated copper wire. B is a small strip of iron. C is a screw eye. D is elastic cord. The rest of the piece is made of wood. Connect the ends of the wire around the posts with wires of the battery. The apparatus can be operated by breaking and closing the circuit. This is done by separating the ends of the wire. The elastic must not be too tense. The strip of iron must be near to the iron posts.

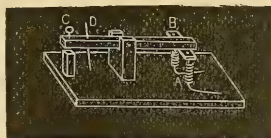


FIG. XXIV.

Fig. xxv represents a piece of apparatus for closing the circuit. A is a piece of brass fastened to a wooden base. B is a brass tack or screw. Connect the tack with one wire of the battery and the brass strip with the other wire. Operate by pressing the strip downward.



FIG. XXV.

Directions to Teachers.

1. Be sure that every pupil sees all parts of the apparatus and operation. Let the class come as near to the table as possible. All must participate in the work of observing, thinking, and talking.

2. Endeavor, as far as possible, to have the pupils think out the lessons for themselves, but do not expend too much energy and time trying to draw out from pupils what they should not be expected to give out without help. Some truths require for their discovery more time than can be given in class work. Use tact in affording judicious assistance. The method with an individual may differ from that with a class.

3. Let every experiment be carefully and repeatedly described. Encourage the use of simple and clear language. Have the events described in the order of their occurrence. Watch the language. Note words, phrases, and sentences to be examined in the language class.

4. Drill persistently upon reproducing the truths taught by the experiments. Be sure that *every* pupil knows thoroughly the lesson of *every* experiment. This requires more repetition than one is apt to suppose. Insist upon real knowledge, not the mere utterance of words.

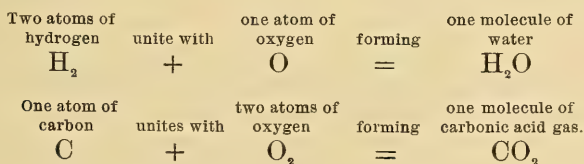
5. Use parts of the work as much as possible in the work of reading, language, physical geography, and arithmetic. Draw from the science work whatever may be helpful in other branches. Science lessons should not increase the course of study, but they should be economical and effective instrumentalities in the work of awakening thought; of attaining power of expression; of gaining ability to read intelligently; and of acquiring knowledge of the world. Such is the aim of the common school.

Explanatory Notes.

THE CANDLE FLAME.

If a piece of ice be heated long enough, it will be changed first to the liquid condition and then to the gas—steam. It thus seems natural that the tallow, paraffine, or wax of a candle should be changed by heat first to a liquid condition and finally to a gas. This gas is composed mainly of hydrogen and carbon. Hydrogen has a stronger attraction for oxygen than carbon has, therefore the hydrogen unites with the oxygen first. This takes place in the second part of the flame. There the carbon is left in an uncombined condition by the separation of the hydrogen. The little particles of carbon are heated so as to shine, that is, so as to give off light. The hydrogen is so greedy that it takes all the oxygen in the second part of the flame, so that there is none for carbon. The carbon passes upward where there is more oxygen and unites with it. Water is composed of hydrogen and oxygen, therefore water is formed when these substances unite in the candle flame. Carbonic acid gas (more properly called carbon dioxide) is composed of carbon and oxygen, therefore this compound is formed when carbon and oxygen unite in the third part of the flame.

The following is an easy way of representing the changes just described :



Do not be afraid of the word, molecule. It simply means the smallest bundle or particle of any substance that exists alone. An atom is the smallest portion of a simple substance

that we can imagine. A molecule is made of atoms united. Generally the word, molecule, is applied to the smallest portion of a compound made of atoms of simple substances.

A molecule is the smallest portion into which a substance can be divided and still remain that substance in an uncombined condition.

An atom is, generally, a still smaller portion produced by the division of a molecule by chemical means and is supposed to be indivisible.

The candle flame represents all common cases of fire, whether they be fire in a stove, gas flame, lamp flame, or a raging conflagration.

We are by the study of fire introduced to the essential principles of chemistry. We are led to consider the uniting of substances to form new kinds of matter; the production of heat by chemical union; the fact that heat favors chemical union; the change in properties that results from chemical changes; the idea of molecule, of atom; the force called chemical affinity or attraction; compound and simple substances; an easy way of representing truth by letters or symbols; the law of substances uniting in definite proportions. These thoughts underlie and reach into the commonest phases of life, as well as the other branches of physical science. Therefore this chapter of truth may be advantageously studied early. The knowledge thus acquired especially elucidates physiology. The changes in the animal body are analogous to the action in combustion and cannot be thoroughly appreciated without some chemical knowledge. The same might be shown concerning the relation of chemistry to other branches, especially geography.

OXYGEN.

Fire leads us to oxygen. Oxygen constitutes by weight :

About 1.5 of air.

8.9 of water.

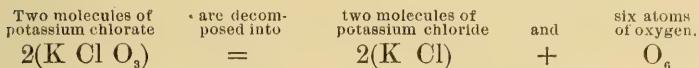
1.2 of the earth.

3.4 of animal bodies.

We depend upon it for every act of the body, yes, for the very thoughts of the brain. Need we stop to advocate its consideration in a broad education ?

Potassium chlorate is composed of potassium, chlorine, and oxygen. Heat drives the oxygen away from the potassium chlorate, leaving a compound of potassium and chlorine in the tube.

This decomposition may be simply represented thus :



Several things must be thought of concerning these letters. K stands for kalium, the Latin word for potassium; the significance of the other letters is obvious. In each molecule of potassium chlorate there are three atoms of oxygen, one atom of chlorine, and one of potassium. Therefore six atoms of oxygen are obtained from two molecules of the compound. Potassium chlorate and potassium chloride are different compounds; do not mistake one for the other on account of similarity in composition and name. The manganese dioxide is used because by its presence the oxygen is liberated from the potassium chlorate more slowly and at a lower temperature. The manganese dioxide remains unchanged in the tube.

In the candle experiment a spark is left to furnish heat, according to the law,—heat generally favors chemical change.

Sulphur is put upon the watch-spring for the same purpose. The iron of the watch-spring unites rapidly with the oxygen forming a compound called iron oxide. All compounds of oxygen and another simple substance are called oxides.

CARBON.

Another substance suggested by the candle flame is carbon. The experiment with the shavings illustrates how mineral coal was formed, namely, by the decomposition of vegetable matter. Wood in the process of burning is first decomposed. Gas is given off and burns with a flame. The appearance of flame always indicates that a gas is burning. A match burns with a flame because the wood is first decomposed by heat into coal and a gas that burns. Bituminous coal differs from anthracite in this respect, that the gas was not all driven from the material in the process of decomposition. It is not

known why this was so. Bituminous coal, therefore, burns with flame and much smoke as the gas takes the oxygen and much carbon escapes unburned. Bituminous coal is a good fuel to heat flue boilers because the flame extends into the flues.

Besides the retorts for holding the heated coal at the gas works there are arrangements for removing impurities from the gas. A tar cistern receives the tar. Several cold water pipes condense the ammoniacal vapors. A filter of lime absorbs other gases. From coal tar beautiful aniline dyes and other useful substances are made.

The use of carbon in removing oxygen from ores should be recognized in order that the advantage of our coal deposits may be appreciated. We get our iron by the help of coal. The influence of iron upon civilized society is inestimable.

HYDROGEN.

Hydrogen is obtained from the sulphuric acid which is composed of hydrogen, sulphur, and oxygen. The zinc takes the place of the hydrogen or unites with the sulphur and oxygen and forms a white salt called zinc sulphate. The water is used to dissolve the salt as fast as it is formed so as to keep it from covering the zinc. The chemical change can be simply represented as follows :

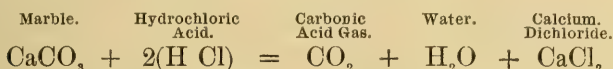


Hydrogen is the lightest substance in the universe. It is very inflammable. A mixture of hydrogen and oxygen or hydrogen and air is very explosive. This explains why mines are often blown to pieces. Gas containing hydrogen is set free from the coal where it has been imprisoned for ages, mixes with the air, and the mixture explodes on the presence of flame or heat. The hydrogen unites with the oxygen, forming water. Hydrogen tones are due to the vibration of the column of air, caused by the rapidly burning hydrogen.

CARBONIC ACID GAS.

This gas is now called carbon dioxide; its symbol is CO_2 . The "di" of the name indicates that there are two atoms of oxygen in the molecule.

The gas is obtained from the marble. The hydrochloric acid is used to decompose the marble and set the gas free. The change may be represented as follows :



The water is used to dissolve the Ca Cl_2 .

A candle flame is extinguished in CO_2 , because there is no free oxygen to unite with the material of the candle. This truth should be used to make plain the effect of CO_2 in breathing.

Lime is invisible in lime water because it is dissolved, that is, the solid is separated into its molecules and these are too small to be seen. When CO_2 is put with lime water, the lime unites with the CO_2 and forms chalk which, being insoluble in water, appears as a white solid, in little particles suspended in the water. This settles after a while as a precipitate.

CO_2 is formed in respiration because the carbon of the body unites with oxygen of the air thus forming CO_2 .

Soda water is formed by putting a compressed volume of CO_2 into water; called "soda" because soda was formerly used in furnishing the CO_2 . Marble is generally used now.

Litmus is a blue substance obtained from the moss, called lichen. It is commonly used for testing acids and alkalies. The former turn it red; the latter turn it back to blue.

Dry CO_2 will not turn blue litmus red. That is why CO_2 is no longer regarded as an acid; while CO_2 and water will affect litmus. Therefore the compound formed by CO_2 uniting with water is carbonic acid; its symbol is $\text{H}_2 \text{CO}_3$. $\text{CO}_2 + \text{H}_2\text{O} = \text{H}_2\text{CO}_3$.

LIQUIDS.

DEFINITIONS.

A *solid* is that condition of matter whose molecules cohere so tenaciously that they cannot be easily moved apart.

A *liquid* is that condition of matter whose molecules do not cohere so tenaciously and can be easily moved apart.

A *gas* is that condition of matter whose molecules do not cohere at all, but tend to separate.

*Solids.**Liquids.**Gases.*

Molecules are near together. Molecules are easily moved. Molecules are far apart.

The words, gas and vapor, are now nearly synonymous.

The freedom of the molecules to move among themselves in a liquid is the reason why pressure exerted in one direction, is transmitted equally in every direction. This principle is the most important lesson to be learned concerning liquids because it underlies so many phenomena in which liquids act a part. Running water, springs, artesian wells, fountains, city water systems, hydrostatic presses, water wheels, water motors, pumps, floating vessels, are examples of common applications of the principle of transmission of pressure due to the movableness of molecules.

The pressure sometimes originates, in the weight of part of the liquid; that is, force of gravitation pulls part of the liquid and this force is communicated in every direction. This is true in the case of springs, rivers, floating bodies, etc.

Sometimes a liquid is forced by applied pressure through a small opening. Supposing that opening is a square inch and the pressure is 10 lbs.; that pressure of 10 lbs. will be exerted upon every square inch that the liquid touches. If it touches a surface of 10 inches the pressure felt on the whole surface will be 100 lbs. This explains the hydrostatic press.

AIR OR GAS.

As the lessons about water apply, in general, to all liquids, so do those about air apply to all gases. We live at the bottom of an ocean of air. Air being matter weighs something. Air pressure, therefore, is the weight of air above the surface of the earth exerted in every direction. The law of equal transmission of pressure is also true of gases.

In the experiment with the glass tube showing pressure, the downward pressure of air through the upper end of the tube merely overcomes the upward pressure of air. So the water is pulled out of the tube by gravitation. The same is true in the oil-can experiment.

If a bottle with a large mouth be inverted, the water that may be in it will run out because there will be room enough for the air to enter through the same opening and press downward.

In the pump experiment the principle of downward pressure being changed to lateral and upward pressure is again exemplified.

In lesson 37 the pith ball is held because the stream of air goes in the direction of a tangent to the ball and thus counteracts some of the air pressure on one side. The air pressure on the other side holds the ball in place.

FRICTIONAL ELECTRICITY.

All bodies of matter are supposed to be capable of affording two kinds of electricity, positive and negative. When two non-conductors, like silk and glass, or flannel and sealing-wax, are rubbed together, one kind of electricity seems to be excited and accumulated on one substance and the other kind, on the second substance.

So the sealing-wax is charged with negative electricity. When it is put near the pith, the positive electricity of the pith is drawn to the side of the pith nearest to the sealing-wax. Hence the piece of pith is first attracted to the sealing-wax; at the moment of contact the positive electricity escapes into the sealing-wax and leaves the pith charged only with negative electricity; then it is repelled by the sealing-wax which is also charged with negative electricity. When the pith is touched by the hand it is connected with the earth and its original condition is reproduced; then the pith is attracted again because there is some positive electricity in it.

ELECTRICAL MACHINE.

When the bottle of the electrical machine is rubbed by the silk cushion, the glass is charged with positive electricity. As the glass passes the points of the conductor the negative electricity is attracted from the conductor and is drawn to the glass. This event leaves positive electricity in the conductor. The silk cushion is charged with negative electricity by the rubbing. In order to reproduce its natural condition the cushion must be connected with the earth by the hand or by a chain.

LEYDEN JAR.

The tin-foil inside of the jar is charged with positive electricity. The surrounding glass prevents its escape. This positive electricity seems to exert an influence through the glass and attracts negative electricity from the earth into the outside tin-foil. Thus two pieces of tin-foil are charged with opposite kinds of electricity. This influence exerted by one body upon another at a distance is called *induction* in distinction from conduction which implies transmission of electrical force from one body to another.

When the two charged bodies are connected by means of a discharger or piece of metal, an exchange of electrical force takes place. This illustrates the phenomena of lightning and thunder. Two clouds charged in some way with opposite kinds of electricity discharge into each other when they come together.

GALVANIC OR VOLTAIC BATTERY.

The law,—when substances unite chemically electricity is produced,—is the principle of a battery. A battery is simply an arrangement for producing electricity from a chemical change and sending it where it may be used. Zinc is very effective in producing chemical changes; especially with sulphuric acid as we have observed in the hydrogen experiments. Therefore, zinc is generally one of the substances used in a battery. The other solid is used to conduct the electricity away. It should be some substance that is not affected chemically by the liquid that is used.

ELECTRO-MAGNETISM.

When a current of electricity passes around wrought iron it magnetizes the iron temporarily. This is the principle of the telegraph apparatus, electric bells, the electric fire alarm, etc. The wire of the circuit must be so covered with insulating material that the metal of the wire shall not touch the iron. Care must be taken to wind the arms of the magnet in opposite directions in order that the poles may be different. Steel is magnetized permanently in this way.

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TEACHERS.

CLARENCE F. CARROLL, PRINCIPAL, <i>Principles of Teaching; Grammar; Writing.</i>	32 Hart st.
ARTHUR B. MORRILL, <i>Natural Science.</i>	40 South High st.
M. JENNIE ATWOOD, <i>Mathematics.</i>	45 South High st.
HATTIE A. LUDDINGTON, <i>Model Schools; Reading; Criticism.</i>	29 Washington st.
HELEN F. PAGE, <i>Model Schools; Arithmetic; Criticism.</i>	Hillside pl.
CLARA W. MINGINS, <i>Kindergarten; Criticism.</i>	124 Washington st.
JESSIE M. WOODWARD, <i>English.</i>	72 Park st.
MARY McCANN, <i>Model Schools; Criticism.</i>	29 Washington st.
CARRIE A. LYLE, <i>Model Schools; Criticism.</i>	29 Washington st.
MARY P. FOSKETT, <i>United States History.</i>	153 Arch st.
ELLOR E. CARLISLE, <i>Geography; Physical Training.</i>	29 Pearl st.
M. GERTRUDE FENN, <i>Drawing; Grammar.</i>	54 South High st.
EMMA L. CARTWRIGHT, <i>Assistant in Model Schools.</i>	16 Maple st.
ELLA M. CURTISS, <i>Assistant in Model Schools.</i>	50 Walnut st.
FANNIBELLE CURTISS, <i>Assistant in Kindergarten.</i>	124 Washington st.
RALPH G. HIBBARD, <i>Elocution.</i>	Hillside pl.
CHARLES D. HINE, <i>School Laws and History of Education in Connecticut.</i>	Hartford.

Lecturer.

TERMS OF ADMISSION.

All candidates for admission to the entering class are examined in the following subjects :

- | | |
|---------------------------|---------------------|
| 1. Reading. | 4. English Grammar. |
| 2. Writing. | 5. Arithmetic. |
| 3. Spelling. | 6. Geography. |
| 7. United States History. | |

THE REGULAR EXAMINATIONS FOR ADMISSION are held in different parts of the state in the months of *July* and *December*, and at the Normal School Building on the first day of each term. These examinations are wholly in writing.

In the summer of 1888, examinations will be held in the following towns.

Hartford,	New Haven,	Norwich,
New Britain,	Meriden,	New London,
Thompsonville,	Waterbury,	Stonington,
	Derby,	Colchester,
Bridgeport,		
South Norwalk,	Winsted,	Rockville,
Stamford,	New Milford,	Stafford Springs,
Danbury,	Litchfield,	
	Canaan,	Willimantic,
Middletown.		Putnam.

Dates and places of entrance examinations will be given upon application to the Principal.

ADVANCED STANDING.—All candidates for advanced standing are examined in the preparatory studies, and also in those studies already pursued by the class which they wish to enter.

CERTIFICATES OF GRADUATION FROM HIGH SCHOOLS IN THIS STATE, OR STATE TEACHERS' CERTIFICATES, are accepted in place of examination.

AGE.—No one under sixteen can be admitted to the Entering Class, nor to an advanced standing, without corresponding increase in age.

TESTIMONIALS.—Each candidate must bring satisfactory testimonials as to character and attainments from a School Visitor of the Town in which he or she resides.

INTENTION TO TEACH.—All candidates must sign a written declaration that their object in securing admission to the school is to become qualified to teach in public schools, and that they intend to engage in that employment in this State.

COURSE OF INSTRUCTION.

The course of instruction occupies two years. For those who find the work too difficult because of inadequate preparation or defective training a special course and an extra term have been provided. This lengthens the course to five or more terms. No one can enter the training and practice department without furnishing satisfactory evidence of a thorough acquaintance with the subjects of the first year.

A few are able to complete the course in less than the prescribed time.

A certificate of graduation from a High School or the State Teachers' Certificate is evidence, though not conclusive evidence that the holder has received an education sufficient to warrant a shorter course. No part of the Training Course can be omitted.

The common school studies, the English language and English literature and elementary science are regarded as essential to intelligent teaching and to these special attention is given. In all branches the topical method is chiefly pursued and students are encouraged in independent investigation.

STUDIES.

FIRST TERM.

Arithmetic.

Language and Grammar.

Geography.

Physiology and Chemistry.

Algebra, half term.

Drawing, 2 hours per week.

Physical Training, 3 hours per week.

SECOND TERM.

Arithmetic, Geography.

Language and Grammar.

History.

{ Chemistry and Physics, half term.

{ Book-Keeping, half term.

Geometry, half term.

Drawing, 2 hours per week.

Physical Training, 3 hours per week.

EXTRA TERM.

1. Geometry.

2. Algebra.

3. Arithmetic ; Geography.

4. Grammar and Composition.

NOTE.—The extra term is provided for those who may find it desirable or necessary to remain in the Normal School more than four terms.

THIRD TERM.

English Authors.
 Physics and Chemistry. (Laboratory work.)
 Methods, four subjects.
 Writing, half term.
 Physical Training.
 Drawing and Modeling.
 Workshop, 3 hours per week.

FOURTH TERM.

English Authors.
 Geology ; Review of Experiments in Physics.
 { Workshop.
 { Physical Training.
 Drawing and Modelling.
 Principles of Teaching.
 Practice and Criticism.

NOTES ON THE COURSE OF STUDY.

NATURAL SCIENCE.

FIRST TERM.

Chemistry. Experiments and recitations.

Physiology. Study of models of human organs, and recitations.

Work upon this subject will be directed toward the inculcation of principles of health. "How to take care of the body?" will be the aim of the course. Recitations, demonstrations, and examinations will constitute the method. The topics for consideration will be such as : Care of the teeth. Process of breathing. Need of pure air. Use of food. Digestion. Useful food. Preparation of food. Deforming bones by unwise dressing and attitudes. Need of exercise. Proper exercise. Bathing. Sleep. Care of the eyes, &c.

SECOND TERM.

Physics. Recitation and laboratory practice. Construction of apparatus in the workshop.

THIRD TERM.

Physics and Chemistry. Laboratory practice.

FOURTH TERM.

Zoölogy and Geology. Lectures. Study of specimens.

Construction of apparatus in the workshop.

Practice in giving science lessons and experiments in schools.

MATHEMATICS.

ARITHMETIC.—*First Term.*

FRACTIONS.	{	Common.	{	Review-Work ; Mental ; Written.
		Decimal.		Deriving Definitions and Rules.

WEIGHTS AND MEASURES.	{	Tables.	{	Development.
			{	Recitation.
			{	Applied in practical examples.
				Metric System.
PERCENTAGE.	{	Processes.	{	Illustrative examples by teacher and pupils.
			{	Interpretation ; Analysis.
			{	Thought expressed ; Formulas.
			{	Written. 1. Condition ; 2. Steps.
			{	Applied in Profit and Loss , Commis- sion ; Stocks.

ALGEBRA.

ARITHMETIC.—*Second Term.*

Business Arithmetic, completed. Ratio and Proportion. Involution and Evolution.

BOOK-KEEPING.

Science of Accounts.

Application of Science ; Single Entry ; Double Entry.

GEOMETRY.

ENGLISH.

FIRST TERM.

Punctuation. Use of Capitals.

Sentence making.

Oral reproduction.

Written statement.

Parts of Speech.

(a.) Classification.

(b.) Correct use *in sentences*.

The Phrase and the Clause.

(a.) As a noun.

(b.) As an adjective.

(c.) As an adverb.

Analysis of sentences.

Letter-writing. Exercises in original composition. Paraphrases and development exercises. Study of Irving and Hawthorne.

BOOKS OF REFERENCE.

Grammars. Whitney, Kerl, Swinton ; Welsh's *Essentials of English*, Chittenden's *Elements of English Composition*, Angus' *Handbook of the English Tongue*, Hodgson's *Errors in English*.

NOTES.—The above scheme is topical and illustrative. Formal grammar occupies a secondary place and the aim is to secure correct and ready use of the English language.

The books of reference named are constantly used in the preparation of lessons. They take the place of a single text-book, the general outline of the work being given by the teacher.

In the study of literature, in addition to the works of the authors, students consult critical and biographical essays selected from the library. The library is open for consultation at all hours, and students are expected to become familiar with such books as may be prescribed.

SECOND TERM.

Structure of English Language. Special study of words from the Saxon, Latin, and Greek. *Synonyms*. Rhetoric.—Diction, Figures, Style.

Study of American Authors.—Bryant, Longfellow, Whittier, Poe, Holmes, Lowell.

Essays on subjects suggested by reading.

BOOKS OF REFERENCE.

Trench's *On the Study of Words*, Skeat's *Etymological Dictionary*, Angus' *Handbook of the English Tongue*, Earl's *Philology of the English Tongue*, Roget's *Thesaurus of English Words*, Crabb's *English Synonyms*, Smith's *Synonyms Discriminated*. *Rhetorics*—A. S. Hill, D. J. Hill, Kellogg, Hart.

THIRD TERM.

Literature.—Studies of Scott, Macaulay, DeQuincey, Lamb, Burns, Wordsworth, Coleridge and Tennyson.

Study of varieties of prose and poetical composition.

How to write an Essay—choice of subjects, material, arrangement of material.

Critical Essay, to be read by each student before the class.

FOURTH TERM.

Prescribed Course of Reading—Selections from Emerson, Carlyle, Addison, Burroughs, Bacon, Milton, *Shakespeare*, Thackeray, George Eliot, Kingsley, Dickens.

Written abstracts upon selections read.

Talks upon—the history and growth of language, the different periods of English literature, the development of the drama.

Argumentative Essays.

POLITICAL GEOGRAPHY.

The work is made objective by appeal to neighborhood geography, by constant use of the moulding board, and by geographical pictures.

The attempt is made to give pupils training which will enable them to read the animal and vegetable life of any country, from its surface and climate.

A geographical cabinet of specimens in botany, zoology and mineralogy is of great aid in the work on "productions." Pupils are required to consult books of science and travel with reference to each production of commercial value. The result of such study is presented to the class in the form of reproductions, illustrated by blackboard drawings.

By the above means pupils obtain a fair understanding of the physical aspects of each country studied.

Attention is given to a logical order of presenting topics for geographical study, and this order is illustrated by a typical study of one continent.

PHYSICAL GEOGRAPHY.

In this subject, aids to study similar to those used in political geography are employed.

The following are the main topics considered.

I. Land and Water lessons.

II. Action of running water.

a. Disintegration of rocks. Formation of soil.

b. Pebbles. Sand. Mud.

c. River terraces.

d. Deltas.

III. Continental similarities.

IV. The Atmosphere.

Properties and Uses.

Aqueous Vapor.

Winds.

Constant.

Periodical.

Variable.

V. Rainfall. Forests.

VI. Dew. Fogs.

VII. Ocean currents.

HISTORY.

The topical method is pursued in the study of this subject. Special prominence is given to social history and political biography.

Free use is made, in reference, of cyclopedias, biographies, historical novels, histories, and other sources of information.

Pupils are led to form habits of independent investigation.

WRITING.

In the third term pupils are instructed in Writing. Upon entering the Normal School few can make the letters correctly. All learn to write accurately in a few weeks, when the subject is taught as a part of Drawing. Rapidity can not be attained in the short time devoted to the subject, but without the ability to write correctly, no one can ever hope to instruct children in this art.

TRAINING COURSE.

The work of the training department occupies the last year of the course:

(a) First five months, preparation.

(b) Second five months, practice in the model schools.

The order of work is as follows:—

1. Model lessons to children in model schools by each of the faculty.

2. Observation by the students of these lessons and of the regular exercises and lessons of the model schools.

3. Notes of observation and outlines of lessons, to be used in practice work (whole year).

4. Trial lessons in model schools.

5. Teaching in model schools (five months).

6. Criticisms by the teachers, and discussions by the students.

7. Principles of teaching and applied Psychology (whole year).

From the beginning, students are made responsible for the board work and other occupations of the children and become familiar with the details of school organization.

TRAINING PRELIMINARY TO PRACTICE.

In the third term, steps in teaching each of the common school studies are carefully given, and illustrated by lessons given to children.

Not only is a plan of teaching each subject arranged, but this plan is made the basis of teaching while the students are assistants in the different grades of the model schools. A *particular* purpose is mentioned in each lesson assigned to an assistant and she is expected to know the *general* purpose of every lesson given in the room. Thus the order in which studies should be taken up, the place of each in a course of study, the steps of an orderly and logical advance, as well as examples of *when and how* each may be presented, are the subjects of instruction and illustration.

Occasional criticisms are made by the teacher in charge, in the presence of the entire class, upon the teaching of one of their own number. Private criticisms and suggestions are offered at the close of each day. No work is considered successful if it does not secure the willing attention of every child during the entire period of recitation, and cultivate the power to *think* and to *express thought*.

PRACTICE.

Six model schools, including the Kindergarten, have been opened at the Central School and five schools outside New Britain are connected with this department. These schools are taught by teachers specially qualified for this particular work.

In addition to the five months of preliminary observation and training mentioned above, each student teaches both in graded schools and in ungraded schools in the country, acting as assistant to the teacher in charge for periods of from two to four weeks in each school. Each graduate has had about five months of actual experience under skilled teachers.

PRINCIPLES AND THEORY.

Observation and practice are made the basis of all theoretical instruction. Such parts of Psychology as are most readily applied in the school-room are carefully considered in their relation to the principles of teaching.

Among the topics selected are attention, association, imagination, will-power and character.

The history of prominent teachers of the last three centuries is read in connection with the familiar principles they have enunciated.

School management and organization are given a prominent place.

Common School Education by Currie, Fitch's Lectures on Teaching, Browning's Theories, and Sully's Handbook of Psychology are among the books used in this department.

ART COURSE.

Instruction is given in geometrical and freehand Drawing during the entire course. Pupils are expected to illustrate readily upon the black-board in teaching Reading, Geography, History, and Natural Science.

Modelling in clay and Coloring have been added during the present term.

THE KINDERGARTEN.

The Kindergarten contains nearly eighty children.

The Junior class in the Normal School observe in the Kindergarten on one day of every week. The Kindergartener gives this class a careful statement of the principles and theory involved, and instructs in the occupations relating to primary work.

GYMNASIUM.

The Gymnasium, completed in June last, is furnished with the most approved apparatus. A special teacher is employed. Classes devote one period each day to physical training. In addition to class exercises, work adapted to individual needs is given to each student. A careful record of the effect of this training in the case of each student is kept.

The Del Sarte system will be taught in connection with that described above.

MANUAL TRAINING.

The workshop recently completed is roomy and well equipped.

The Junior and Senior classes give an hour each day to making apparatus. They supply themselves with a considerable number of pieces which they can use in teaching elementary science. They also gain a knowledge of material and its uses.

Scholars of the Model Schools are also instructed in the use of tools, and practice regularly in the workshop.

THE LIBRARY.

Large additions have recently been made to the library; which now contains 4000 miscellaneous books and 500 text-books. A card catalogue, classifying by topics, has recently been completed.

Students are trained to use the library from the first. Most lessons assigned are topical, and must be learned by using references given by instructors. The reading table is supplied with magazines, educational journals, miscellaneous papers, and two daily newspapers.

SPECIAL COURSES.

A limited number of special students may receive instruction in Natural Science, in Physical Training and in the Kindergarten.

Such special students pay a tuition of fifty dollars for the training in the Kindergarten, and about twelve dollars for material. The course covers one year and requires the entire time of the candidate. A diploma is awarded.

Students in the other two departments named pay no tuition, provided they declare their intention to teach in Connecticut. Otherwise they pay a fee of one dollar per week.

Graduates of the school will be competent to give elementary instruction in the last two subjects named, but no special diploma will, at present, be awarded.

TERMS AND VACATIONS.

There are in the year two terms of twenty weeks each. The first term begins about the first of September and ends in the following January. The second term begins on the Monday following the close of the first term and continues until the last of June. There are recesses at Thanksgiving and Christmas in the first term and a spring recess in April.

For terms and recesses in 1887-8 see the Calendar on page 373.

EXPENSES.

The advantages of the school are offered free to all who declare their intention to teach in the common schools of this State.

Necessary text-books are provided without charge. Pupils are advised to purchase a few reference books.

In the senior term there may be a slight additional expense in going to and from the practice schools outside of New Britain.

A small charge is made for periodicals, stationery, magazines, incidentals and graduating expenses. These charges amount to about twenty dollars a year.

The average cost of board and washing is about \$4.25 per week. The total average cost per pupil, not including amount

paid for clothing and traveling expenses is thus less than \$200 per year.

Many do their own housework and reduce the expenses of board to one-half or two-thirds the sum named above.

Comfortable rooms and good board can be secured after students arrive at New Britain. At the beginning of the term the principal will always be found at the Normal School building and will assist new-comers in finding boarding places.

VISITORS.

All departments are open to visitors interested in education. Teachers from schools of the State are especially welcome.

GRADUATION.

A class is graduated at the close of each of the two terms into which the school year is divided, viz : near the close of January and of June.

The diploma is awarded to those who attain the required standard of scholarship in every prescribed subject and exhibit a fair degree of skill in teaching and governing children.

GRADUATES.

The demand for trained teachers is constantly increasing. So far as can be ascertained, no recent graduate is unemployed. Many towns and districts in the State employ only trained teachers, so far as this is possible.

Of one hundred and sixty-nine who have graduated since September, 1883, one hundred and sixty are at present teaching,—one hundred and ten in graded schools, and fifty in ungraded schools.

The Normal School does not send out one-quarter of the number who could readily find remunerative situations. Especially is there an eager demand for teachers who can teach and manage the higher classes of graded schools.

There is ample encouragement for college graduates and others of liberal education to prepare themselves for teaching by a course in the Training School.

LIST OF STUDENTS.

SENIOR CLASS.

Abernethy, S. Emir,	<i>Hartford.</i>	
Andrews, A. Gertrude,	<i>Hartford.</i>	
Bigelow, Julia E.,	<i>Newington.</i>	
Deshon, Corrinne A.,	<i>Meriden.</i>	
Dorsey, Mary A. R.,	<i>Hartford.</i>	
Egan, Katharine E.,	<i>Waterbury.</i>	
Fish, Emma W.,	<i>Bristol.</i>	
Gelston, Ruby M.,	<i>Hartford.</i>	
Haugh, Catharine A.,	<i>Botsford.</i>	12 Winter.
Hewitt, Ruth A.,	<i>Parkville.</i>	
Judson, Kate E.,	<i>Huntington.</i>	63 Walnut.
Kingsley, Mary A.,	<i>Yantic.</i>	34 Pearl.
Leary, Margaret J.,	<i>Scitico.</i>	32 Tremont.
McArdle, Mary H.,	<i>New Britain.</i>	65 Chestnut.
McMahon, Margaret C.,	<i>New Britain.</i>	Elm.
Montague, Bertha F. S.,	<i>New Britain.</i>	Grand.
Stark, Elizabeth F.,	<i>New London.</i>	280 Arch.
Welch, Margaret A.,	<i>Vernon.</i>	
Wilcox, Fannie E.,	<i>East Hartford.</i>	

Total 19.

JUNIOR CLASS.

Allen, Mary E.,	<i>Westville.</i>	109 Prospect.
Andrus, Cora E.,	<i>Windsor.</i>	
Boehm, Lucy M.,	<i>New Britain.</i>	57 Seymour.
Booth, Bessie S.,	<i>New Britain.</i>	395 East Main.
Burwell, Bertha M.,	<i>New Hartford.</i>	
Carbery, Lucy P.,	<i>Andover.</i>	117 Camp.
Carr, Alice,	<i>Wallingford.</i>	
Carroll, Ruth W.,	<i>East Hartford.</i>	
Case, Etta,	<i>New Britain.</i>	394 Park.
Chase, Helena E.,	<i>Rocky Hill.</i>	
Clark, Mary E.,	<i>Windsor Locks.</i>	
Clark, Ellen S.,	<i>Quarryville.</i>	54 So. High.
Cobey, Lucy,	<i>Newington.</i>	
Cooke, Louise P.,	<i>West Winsted.</i>	34 Pearl.
Daniels, Nellie M.,	<i>Unionville.</i>	
Day, Annie C.,	<i>Hartford.</i>	
Day, Ella M.,	<i>Hadlyme.</i>	54 So. High.
Fennelly, Eleanor L.,	<i>Birmingham.</i>	44 Walnut.

Filer, Emma R.,	<i>Warehouse Point.</i>	
Fordham, Ida E.,	<i>Essex.</i>	30 Griswold.
Griswold, Charlotte L.,	<i>Terryville.</i>	
Griswold, Estena M.,	<i>Windsor Locks.</i>	
Hill, Sarah M.,	<i>Redding.</i>	280 Arch.
Hubbell, Jessie L.,	<i>Bristol.</i>	
Huntley, Lucie S.,	<i>Hamburgh.</i>	30 Griswold.
Jenks, Julia S.,	<i>Hartford.</i>	
Klinger, Bertha H.,	<i>Hartford.</i>	
Lamb, Eva,	<i>Franklin.</i>	109 Prospect.
Mitchell Lillie A.,	<i>West Hartford.</i>	
Moore, Mary A.,	<i>North Madison.</i>	35 Hawkins.
Moriarty, Katharine E.,	<i>So. Manchester.</i>	86 Glen.
Palmer, Annie E.,	<i>New Britain.</i>	6 Franklin.
Pease, Lulu J.,	<i>Windsor Locks.</i>	
Pender, Adelaide,	<i>Southington.</i>	
Penfield, Nellie R.,	<i>New Britain.</i>	60 Franklin.
Phelps, Emmagene,	<i>Enfield.</i>	
Savage, Julia S.,	<i>Ivoryton.</i>	86 Seymour.
Sparks, Edith M.,	<i>New Britain.</i>	16 John.
Scranton, Nellie,	<i>Madison.</i>	153 Arch.
Stone, Hattie M.,	<i>New Hartford.</i>	
Ulrich, Julie A.,	<i>Hartford.</i>	
Vinton, E. Roselle,	<i>East Hartford.</i>	53 So. High.
Wakelee, Ada M.,	<i>Birmingham.</i>	44 Walnut.
Walker, Lenora E.,	<i>Manchester.</i>	
Whedon, Jennie M.,	<i>Madison.</i>	153 Arch.
Willard, Martha,	<i>Wethersfield.</i>	
Total 46.		

MIDDLE CLASS.

Barkentin, Harriet,	<i>New Britain.</i>	44 So. High.
Barnum, Laura C.,	<i>So. Kent.</i>	34 Pearl.
Barnes, Ida M.,	<i>River Herbert, N. S.</i>	65 So. High.
Blake, Gertrude V.,	<i>Hartford.</i>	
Bronson, Virginia A.,	<i>East Kent.</i>	175 Main.
Bradley, Ora E.,	<i>No. Manchester.</i>	
Bull, Mary A.,	<i>New Hartford.</i>	
Bulluss, Ellen,	<i>Meriden.</i>	
Clinton, Ida L.,	<i>Clintonville.</i>	44 Walnut.
Cooke, Bertha S.,	<i>Torrington.</i>	65 So. High.
Coughlen, Marcella P.,	<i>Plainville.</i>	
Davis, Minnie W.,	<i>Unionville.</i>	
Duff, Mary B.,	<i>Hartford.</i>	
Duvall, Isabel G.,	<i>New Britain.</i>	73 Prospect.
Guilfoil, Kate E.,	<i>Hartford.</i>	
Gibby, Wilhemina B.,	<i>Brooklyn, N. Y.</i>	3 Griswold.
Gladding, Alice E.,	<i>Center Brook.</i>	85 Seymour.

Hall, Nettie E.,	<i>Bristol.</i>	
Holmes, Mary A.,	<i>New London.</i>	519 Arch.
Kelsey, Fannie W.,	<i>Meriden.</i>	
Lockwood, Carrie E.,	<i>Redding.</i>	55 Grand.
Martin, Edwina M.,	<i>Lyme.</i>	
Maine, Abbie C.,	<i>No. Stonington.</i>	44 Walnut.
Maloney, Josephine P.,	<i>Hartford.</i>	
Moriarity, Nellie A.,	<i>So. Manchester.</i>	86 Glen.
Morse, Mary K.,	<i>Meriden.</i>	
Mulligan, Annie,	<i>Hartford.</i>	
Pasco, Lena A.	<i>Cromwell.</i>	
Platt, Edith J.,	<i>Deep River.</i>	20 Pearl.
Platt, Annie L.,	<i>Danbury.</i>	15 Prospect.
Pistorius, Annie C.,	<i>Meriden.</i>	
Sanford, Leah H.,	<i>Redding.</i>	280 Arch.
Shepard, Ellen L.,	<i>Hartford.</i>	
Simms, Carrie I.,	<i>Windsor Locks.</i>	
Smith, Lucy M.,	<i>Wethersfield.</i>	
Sullivan, Mary A.,	<i>No. Manchester.</i>	
Sullivan, Nellie,	<i>Canterbury.</i>	65 So. High.
Tate, Rebecca L.,	<i>Windsor Locks.</i>	
Tuttle, Emily J.,	<i>No. Haven.</i>	
Strong, Charles R.,	<i>Colchester.</i>	676 Grand.
Hunt, Henry D.,	<i>Columbia.</i>	13 Hart.

Total 41.

ENTERING CLASS.

Adams, Elsie M.,	<i>Canaan.</i>	35 Hawkins.
Aldrich, Edith L.,	<i>East Killingly.</i>	35 Hawkins.
Allen, Bertha,	<i>Norwalk.</i>	519 Arch.
Allen, Elizabeth L.,	<i>East Windsor.</i>	73 Prospect.
Allyn, Grace M.,	<i>Hebron.</i>	91 So. Main.
Backus, Belle F.,	<i>New Haven.</i>	
Bale, Laura E.,	<i>New York City.</i>	85 Seymour.
Beach, Mary O.,	<i>New Britain.</i>	
Beardsley, Bertha L.,	<i>Birmingham.</i>	63 Walnut.
Blair, Mary L.,	<i>East Windsor Hill.</i>	53 So. High.
Bosch, Louise E.,	<i>Windsor Locks.</i>	
Brown, Lily C.,	<i>New Britain.</i>	519 Arch.
Brown, Emma F.,	<i>Plainville.</i>	
Burr, Fannie E.,	<i>South Glastonbury.</i>	Prospect.
Campbell, Annie B.,	<i>West Suffield.</i>	165 Chestnut.
Carter, Lena R.,	<i>New York City.</i>	
Case, Venelia R.,	<i>Bloomfield.</i>	
Chapin, Jennie E.,	<i>New Britain.</i>	72 Lincoln.
Chidsey, Edith R.,	<i>Westville.</i>	
Clarke, Clara M.,	<i>Portland.</i>	
Clary, Mary,	<i>New Britain.</i>	72 Maple.

Codding, Nellie A.,	<i>Danielsonville.</i>	35 Hawkins.
Cody, Lillian M.,	<i>Hartford.</i>	
Coles, Mary E.,	<i>Middlefield.</i>	
Condell, Catherine M.,	<i>Plainville.</i>	
Crocker, Mary B.,	<i>Hartford.</i>	
Crossman, Matie E.,	<i>So. Norwalk.</i>	76 Grand.
Curtis, Sarah,	<i>Stamford.</i>	76 Grand.
Dennison, Annie C.,	<i>Mystic Bridge.</i>	
Dohrenwend, Mary A.,	<i>Newington.</i>	
Ensign, Mary A.,	<i>Hartford.</i>	
Faber, Caroline M.,	<i>Seymour.</i>	12 Hawkins.
Gaines, Flora L.,	<i>East Hartland.</i>	30 Griswold.
Gallup, Jennie M.,	<i>Buckland.</i>	
Gaylord, Bessie T.,	<i>Bridgeport.</i>	30 Griswold.
Geer, Eliza S.,	<i>Hadlyme.</i>	519 Arch.
Goodrich, Mary E.,	<i>New Britain.</i>	112 Chestnut.
Greene, Emma L.,	<i>Meriden.</i>	
Griffin, Bertha K.,	<i>West Suffield.</i>	32 Hawkins.
Griffin, Sarah L.,	<i>West Suffield.</i>	32 Hawkins.
Griswold, Emma M.,	<i>New Britain.</i>	64 Chestnut.
Grush, Mary E.,	<i>Perry Centre, N. Y.</i>	
Hall, Cora M.,	<i>Northford.</i>	110 Camp.
Hall, Eda L.,	<i>New Canaan.</i>	280 Arch.
Harper, Mary E.,	<i>Windsor Locks.</i>	
Hart, Mary F.,	<i>Yonkers, N. Y.</i>	50 Walnut.
Hickox, Eva A.,	<i>Durham.</i>	104 Camp.
Hogan, Nellie M.,	<i>Hartford.</i>	
Hotchkiss, Emma D.,	<i>Westville.</i>	
Howell, Grace E.,	<i>New Britain.</i>	71 Elm.
Hubbell, Jessie L.,	<i>Bristol.</i>	
Jacobs, Nellie T.,	<i>Hartford.</i>	
Jagger, Ella,	<i>Hebron.</i>	
Jencks, Martha A.,	<i>Norwich.</i>	109 Prospect.
Judson, Sarah L.,	<i>Bristol.</i>	
Keenan, Elizabeth,	<i>Waterbury.</i>	
Kemp, Edna L.,	<i>Norwalk.</i>	12 Hawkins.
Kenny, Ellen A.,	<i>Mt. Carmel.</i>	78 Winter.
Kirtland, Alice A.,	<i>Chester.</i>	44 Walnut.
Latham, Florence E.,	<i>Gales Ferry.</i>	104 Camp.
Lawrence, Annie,	<i>Gildersleeve.</i>	
Lee, Bertha E.,	<i>Ridgefield.</i>	43 Walnut.
Leonard, Ida A.,	<i>Durham.</i>	44 Walnut.
Lewis, Florence D.,	<i>New Hartford.</i>	44 Walnut.
Lillie, Mary E.,	<i>Portland.</i>	
Lounsbury, Annie M.,	<i>Hartford.</i>	53 So. High.
Loveland, Charlotte E.,	<i>New Haven.</i>	44 Walnut.
Lynn, Ellen J.,	<i>Meriden.</i>	
Mack, Lucy L.,	<i>Watertown.</i>	44 Walnut.
Maine, Mattie L.,	<i>No. Stonington.</i>	44 Walnut.

Maloney, Ellen A.,	<i>Manchester.</i>	
McKenna, Elizabeth M.,	<i>Wallingford.</i>	
McVeagh, Aretta M.,	<i>Westbrook.</i>	126 Camp.
Millard, Sadie C.,	<i>Merron.</i>	53 So. High.
Miller, Hattie D.,	<i>Bloomfield.</i>	35 Hawkins.
Moses, Cora J.,	<i>West Simsbury.</i>	
Munson, Emma G.,	<i>Northford.</i>	110 Camp.
Myers, Margaret E.,	<i>Wallingford.</i>	
O'Dell, Margaret J.,	<i>New Britain.</i>	
Osborne, Adelaide D.,	<i>East Windsor Hill.</i>	
Parsons, Belle M.,	<i>Hartford.</i>	
Peck, Carrie D.,	<i>New Britain.</i>	91 Maple.
Peck, Helen H.,	<i>Ansonia.</i>	50 Court.
Prindle, Helen O.,	<i>Sharon.</i>	65 So. High.
Ritch, Jennie C.,	<i>Port Chester, N. Y.</i>	50 Court.
Roche, Alice M.,	<i>West Suffield.</i>	
Rowden, Annie E.,	<i>Wallingford.</i>	
Russell, Grace E.,	<i>Bristol.</i>	280 Arch.
Sanford, Sarah G.,	<i>Litchfield.</i>	130 Main.
Schröder, Nettie,	<i>Mystic Bridge.</i>	109 Prospect.
Selleck, Celina M.,	<i>Salisbury.</i>	55 Grand.
Simpson, Josephine J.,	<i>Wallingford.</i>	
Smith, Bertha F.,	<i>Colchester.</i>	55 Grand.
Spaulding, Ada E.,	<i>Hartford.</i>	
Spaulding, Minnie M.,	<i>Falls Village.</i>	35 Hawkins.
Sperry, Eliza T.,	<i>Meriden.</i>	
Sperry, Frances J.,	<i>Meriden.</i>	
Steiger, Annie L.,	<i>Bridgeport.</i>	
Stiner, Emma J.,	<i>Wallingford.</i>	
Stoughton, Sophia M.,	<i>So. Windsor.</i>	55 Grand.
Stowell, Amy E.,	<i>Meriden.</i>	
Strong, Hattie V.,	<i>Meriden.</i>	
Tolles, Lizzie I.,	<i>So. Norwalk.</i>	12 Hawkins.
Walsh, Matilda L.,	<i>Waterbury.</i>	
Wheeler, Margaret,	<i>West Winsted.</i>	157 Main.
Wheeler, Sarah,	<i>Stratford.</i>	44 Walnut.
Wood, Winifred A.,	<i>Waterbury.</i>	130 Main.
Zimmerman, Anna,	<i>New Britain.</i>	297 Myrtle.
Barber, William J.,	<i>Harwinton.</i>	
Curtiss, Frederic A.,	<i>Stratford.</i>	50 Walnut.
Kibbe, Merrick C.,	<i>Ellington.</i>	Rogers' Block.
Maby, W. Howard,	<i>Bridgeport.</i>	199 Chestnut.
Pulver, Frank A.,	<i>Torrington.</i>	39 No. Stanley.
	Total 113.	

SPECIAL COURSE IN SCIENCE.

Robbins, Caroline T., *Wethersfield.*

SPECIAL COURSE IN GYMNASTICS.

Rogers, Sara, *New Britain.* 37 Prospect.

KINDERGARTEN.

SENIOR CLASS.

Curtis, Fanniebelle,	<i>Norwalk.</i>	124 Washington.
Holcombe, Mary L.,	<i>Hartford.</i>	46 Orchard.
Smith, Fanny L.,	<i>New Britain.</i>	92 Grand.
Somers, Minnie S.,	<i>Hartford.</i>	55 Winthrop.
Upson, May B.,	<i>New Britain.</i>	447 Arch.
	Total, 5.	

ENTERING CLASS.

Allen, Hattie L.,	<i>New Britain.</i>	110 Camp.
Atwood, Evelyn E.,	<i>New Britain.</i>	26 So. High.
Baldwin, Laura B.,	<i>Meriden.</i>	
Copley, Carrie B.,	<i>New Britain.</i>	23 Park Place.
Jennings, Lilian,	<i>Bristol.</i>	
Viets, Ida E.,	<i>New Britain.</i>	447 Arch.
	Total, 6.	

PRIMARY TRAINING.

GRADUATE OF JUNE, 1887.

Evenden, Winnie S.,	<i>So. Norwalk.</i>	92 Grand.
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SUMMARY FOR THE YEAR.

NORMAL AND TRAINING DEPARTMENT.

Class Graduated, January, 1887,	-	-	-	-	-	-	15
Class Graduated, June, 1887,	-	-	-	-	-	-	39
Senior Class,	-	-	-	-	-	-	19
Junior Class,	-	-	-	-	-	-	46
Middle Class,	-	-	-	-	-	-	41
Entering Class,	-	-	-	-	-	-	113
Special Course in Science,	-	-	-	-	-	-	1
Special Course in Gymnastics,	-	-	-	-	-	-	1
							<hr/> 275

KINDERGARTEN TRAINING DEPARTMENT.

Class Graduated, January, 1887,	-	-	-	-	-	2
Class Graduated, June, 1887,	-	-	-	-	-	4
Senior Class,	-	-	-	-	-	5
Entering Class,	-	-	-	-	-	6
						<hr/> 17

PRIMARY TRAINING.

Class Graduated, June, 1887,	-	-	-	-	-	1
						293
Deduct for names counted twice,	-	-	-	-	-	8
Total,	-	-	-	-	-	285

NAMES OF GRADUATES.

1883-1887.

January, 1884.

Name.	P. O. Address.	Name.	P. O. Address.
Bates, Effie C.,	<i>New Britain.</i>	Nash, Marion H.,	<i>Ridgefield.</i>
Booth, Mary A.,	<i>New Britain.</i>	Pratt, Edwina M.,	<i>Essex.</i>
Daniels, Ida L.,	<i>Hartford.</i>	Roll, Annie B.,	<i>Hartford.</i>
Granville, Nella R.,	<i>Milford.</i>	Satterlee, Ellen S.,	<i>Ledyard.</i>
Hoffman, M. Eliz.,	<i>New Britain.</i>	Sherlock, Alice L.,	<i>Hartford.</i>
Judson, Maria,	<i>Stratford.</i>	Way, Edith G.,	<i>Bristol.</i>
Lewis, Lina N.,	<i>Southington.</i>	Wingood, Alice M.,	<i>Guilford.</i>

14.

June, 1884.

Name.	P. O. Address.	Name.	P. O. Address.
Bunnell, Alice L.,	<i>Hartford.</i>	Pardee, Emma E.,	<i>New Haven.</i>
Clark, Belle M.,	<i>Meriden.</i>	Rhaum, Annie L.,	<i>Windsor.</i>
Finley, Mary A.,	<i>Manchester.</i>	Ruggles, Henrietta,	<i>Brookfield.</i>
Gardner, Mary E.,	<i>New London.</i>	Smith, Lucy N.,	<i>Ridgefield.</i>
Johnston, Annie L.,	<i>Hartford.</i>	Snow, Emma E.,	<i>Manchester.</i>
Johnson, Carrie C.,	<i>New Haven.</i>	* Watson, Dora,	<i>South Windsor.</i>
Lockhart, Margaret,	<i>Greenwich.</i>	Way, L. Gertrude,	<i>Woodstock.</i>
Miller, Mary E.,	<i>Bloomfield.</i>	White, M. Ella,	<i>Waterbury.</i>

16.

January, 1885.

Name.	P. O. Address.	Name.	P. O. Address.
Emmons, Hattie O.,	<i>East Haddam.</i>	Merrill, Annie B.,	<i>Norwalk.</i>
Gill, Esther D.,	<i>Boscawen, N. H.</i>	Moore, Gertrude M.,	<i>New Britain.</i>
Goodyear, Edith,	<i>North Haven.</i>	Newton, Abby M.,	<i>Hartford.</i>
Gorton, L. Belle,	<i>Hartford.</i>	Stone, Sarah E.,	<i>Hartford.</i>
Hoskins, Bertha L.,	<i>Hartford.</i>	Ware, M. Elizabeth,	<i>Hartford.</i>
Jamieson, Isabella,	<i>Bridgeport.</i>		

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* Died January 1, 1885.

June, 1885.

Name.	P. O. Address.	Name.	P. O. Address.
Allen, Amanda,	<i>Groton Center.</i>	Monroe, Nellie D.,	<i>New Canaan.</i>
Allen, May L.	<i>Meriden.</i>	Murphy, Myrtie E.,	<i>Westerly, R. I.</i>
Alvarez, Dominga C.,	<i>Meriden.</i>	O'Keefe, Anastatia,	<i>Norwich.</i>
Arms, Millie,	<i>Bristol.</i>	Pittner, Mary,	<i>Bristol.</i>
Baldwin, Luella J.,	<i>Meriden.</i>	Rile, Mary E.,	<i>Rowayton.</i>
Bradley, Mary A.,	<i>Plymouth.</i>	Roemer, Anna C.,	<i>Enfield.</i>
Bunnell, May,	<i>Terryville.</i>	Rossberg, Louise B.,	<i>New Britain.</i>
Cushman, Florence A.,	<i>Bloomfield.</i>	Schwab, Emma N.,	<i>Hartford.</i>
Daley, Mary E.,	<i>Hartford.</i>	Smith, Mary B.,	<i>Litchfield.</i>
Fletcher, Alice,	<i>Warehouse Pt.</i>	Stillson, Iva M.,	<i>South Norwalk.</i>
Hart, Anna S.,	<i>New Britain.</i>	Thompson, Minnie A.,	<i>Wareh'se Pt.</i>
Jennings, Emma J.,	<i>New Fairfield.</i>	Welton, Elizabeth,	<i>Plymouth.</i>
Lee, Abbie S.,	<i>Hanover.</i>		25

January, 1886.

Name.	P. O. Address.	Name.	P. O. Address.
Anderson, Barbara A.,	<i>Hazardville.</i>	Howe, Annie I.,	<i>Glastonbury.</i>
Behrish, Clara,	<i>Norwich.</i>	Lane, H. Edgar,	<i>Killingworth.</i>
Birge, Alice E.,	<i>Torrington.</i>	Losty, Katherine J.,	<i>Hartford.</i>
Bragaw, Carrie W.,	<i>New London.</i>	Sears, Lephe E.,	<i>Portland.</i>
Carroll, Emma M.,	<i>Hartford.</i>	Sawyer, Lucy H.,	<i>Columbia.</i>
Cohn, Minna K.,	<i>New London.</i>	Vile, Clara M.,	<i>New Britain.</i>
Deming, Nellie L.,	<i>New Britain.</i>	Waters, Minnie J.,	<i>New Britain.</i>
Fenton, M. A.,	<i>Stafford Springs.</i>	Wheeler, Sadie M.,	<i>New Britain.</i>
Flynn, Elizabeth A.,	<i>Hartford.</i>	Wingood, Fannie E.,	<i>Guilford.</i>
Guilfoil, Annie L.,	<i>Hartford.</i>		19

June, 1886.

Name.	P. O. Address.	Name.	P. O. Address.
Bingham, Alice E.,	<i>Riverton.</i>	La Vere, Edith A.,	<i>Long Ridge.</i>
Burritt, Lillie B.,	<i>New Britain.</i>	Mack, Ella S.,	<i>Waterbury.</i>
Camp, Augusta L.,	<i>Newing'n Junc.</i>	Mahon, Mary P.,	<i>Hartford.</i>
Carroll, Jennie L.,	<i>Yalesville.</i>	Morse, Minnie G.,	<i>Northfield.</i>
Cowles, Helena D.,	<i>New Britain.</i>	Perkins, Katherine A.,	<i>Winsted.</i>
Crowley, Annie G.,	<i>New Britain.</i>	Quigg, Mary R.,	<i>Colchester.</i>
Fahey, Margaret J.,	<i>Wallingford.</i>	Randall, Mary A.,	<i>Lebanon.</i>
Ferris, Ivanor B.,	<i>Sound Beach.</i>	Rollins, Nellie J.,	<i>New Britain.</i>
Finley, Nellie E.,	<i>Bolton.</i>	Slack, N. Emma,	<i>Mystic River.</i>
Guinan, Theresa V.,	<i>Hartford.</i>	Stanton, Flora H.,	<i>East Lyme.</i>
Hart, Estelle M.,	<i>Guilford.</i>	Stührman, Minnie L.,	<i>Southington.</i>
Leete, Elizabeth M.,	<i>Guilford.</i>	Todd, Edith W.,	<i>Woodbridge.</i>

January, 1887.

Name.	P. O. Address.	Name.	P. O. Address.
Gray, Janet E.,	<i>So. Manchester.</i>	Sheldon, Marion A.,	<i>New Britain.</i>
Hoskins, Helen F.,	<i>Hartford.</i>	Standish, Mary S.,	<i>Wethersfield.</i>
Howe, Ada E.,	<i>Thompsonville.</i>	Whitworth, Adella F.,	<i>Thompsonville.</i>
Parker, Hattie L.,	<i>Yalesville.</i>	Williams, Margaret A.,	<i>Rocky Hill.</i>
Phippeny, Emma L.,	<i>Torrington.</i>	Williams, Carrie L.,	<i>Waterbury.</i>
Robertson, Maria L.,	<i>No. Manchester.</i>	Wolff, Annie F.,	<i>New Britain.</i>
Sage, Emeda,	<i>Cromwell.</i>	Clark, Walter E.,	<i>Chaplin.</i>
Seavers, Cora J.,	<i>Hartford.</i>		

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KINDERGARTEN.

Winnie S. Evenden, *South Norwalk.* | Mary S. Hine, *Newington.**June, 1887.*

Name.	P. O. Address.	Name.	P. O. Address.
Abbott, Lizzie E.,	<i>Waterbury.</i>	Hinchliffe, Mary E.,	<i>Milton.</i>
Adams, Bertha M.,	<i>Wethersfield.</i>	Hubbell, Hattie L.,	<i>Birmingham.</i>
Andrews, Jennie,	<i>Bethel.</i>	Kalkoff, Lillie,	<i>New Britain.</i>
Bell, Grace L.,	<i>Darien.</i>	Kyle, Annie D.,	<i>Bethel.</i>
Brockway, Bertha,	<i>Middletown.</i>	Meagher, Ida A.,	<i>Brookfield.</i>
Brown, Bertha C.,	<i>So. Norwalk.</i>	Mahler, Alice A.,	<i>Waterbury.</i>
Buckley, Flora E.,	<i>Meriden.</i>	Mott, S. Minnie,	<i>Yonkers, N. Y.</i>
Cartwright, Emma L.,	<i>Nantucket, Mass.</i>	Munger, Harriett,	<i>East River.</i>
Chadeayne, E. Jane,	<i>Shelton.</i>	Munson, Lucy J.,	<i>Southford.</i>
Curtiss, Ella M.,	<i>Bridgeport.</i>	Nettleton, Mary W.,	<i>Washington.</i>
Covell, Jane C.,	<i>Talcotville.</i>	Richmond, Annette B.,	<i>Norwich.</i>
Devon, Henrietta C.,	<i>So. Manchester.</i>	Roemer, Ernestine W.,	<i>Enfield.</i>
Ellsworth, Kate L.,	<i>East Windsor.</i>	Sarvent, Emily M.,	<i>Hartford.</i>
Fenn, M. Gertrude,	<i>Terryville.</i>	Seymour, Carrie L.,	<i>Hartford.</i>
Francis, Mary R.,	<i>West Hartford.</i>	Smith, Louise M.,	<i>Saugatuck.</i>
Gallup, Caroline A.,	<i>Baltic.</i>	Stocking, Ethel,	<i>Gildersleeve.</i>
Gladwin, Carrie C.,	<i>Hartford.</i>	Wadhams, Julia E.,	<i>Goshen.</i>
Griswold, Sarah L.,	<i>Rocky Hill.</i>	Waugh, Jennie M.,	<i>Morris.</i>
Hanna, Lizzie J.,	<i>New Britain.</i>	Woodward, Mary I.,	<i>Danielsonville.</i>
		Watson, Walter S.,	<i>Warehouse Pt.</i>

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KINDERGARTEN.

Annie E. Conklin, *New Britain.* | Iva M. Stillson, *South Norwalk.*
Harriett L. Learned, *New Britain.* | Jennie B. Webb, *Brooklyn.*

SUMMARY OF GRADUATES.

1884	{	January,	.	.	.	.	.	14	}	30
		June,	.	.	.	.	.	16		
1885	{	January,	.	.	.	.	.	11	}	36
		June,	.	.	.	.	.	25		
1886	{	January,	.	.	.	.	.	19	}	43
		June,	.	.	.	.	.	24		
1887	{	January,	.	.	.	.	.	17	}	60
		June,	.	.	.	.	.	43		
									<hr/>	
									169	

CALENDAR.

1887.

31 Aug.		Fall and Winter Term begins.
5 Sept.		Model Schools open.
23 Nov.	Wednesday (noon),	Thanksgiving recess begins.
28 Nov.	Monday (noon),	Thanksgiving recess ends.
23 Dec.	Friday,	Christmas recess begins.
26-31 Dec.		Entrance Examinations in different parts of the State.

1888.

2 Jan.	Monday,	Christmas recess ends.
27 Jan.	Friday,	Fall and Winter Term ends.
30 Jan.	Monday,	Spring and Summer Term begins.
30 Jan.	Monday,	Entrance Examination at Normal School building.
30 March.	Friday,	Spring recess begins.
10 April.	Tuesday,	Spring recess ends.
22 June.	Friday,	Spring and Summer Term ends.
22 June.	Friday,	Graduating Exercises.
23 June.	Saturday,	Entrance Examination at Normal School building.
July,		Entrance Examinations held in different Towns. See page 356.

Summer Vacation of ten weeks.

4 Sept.	Tuesday,	Fall and Winter Term begins.
21 Dec.	Friday,	Christmas recess begins.

REPORT

OF THE

COUNCIL OF EDUCATION.

The semi-annual meeting of the Connecticut Council of Education was held at the High school building in Hartford on Saturday, December 17th, the president, J. J. Jennings of Bristol, in the chair. The topics for discussion were the report of the committee on the training of teachers, prepared by M. S. Crosby, J. J. Jennings, and C. F. Carroll ; a paper on " Arithmetic in the Common School Course " by F. A. Brackett and " The State Book on Physiology and Hygiene as a Text Book. "

At the meeting of the council one year ago Mr. Jennings read a paper on Training Teachers which awakened so much interest that a committee was appointed by the council to prepare something on that topic which would be of value to teachers in general. The committee, consisting of M. S. Crosby of Waterbury, J. J. Jennings of Bristol and C. F. Carroll of New Britain, having heard that the state board was preparing something of the same kind, consulted with them, after which each took up a certain portion of the subject and the whole was edited as one work.

Mr. Crosby read the following report of the committee :

TRAINING OF TEACHERS.

The undersigned were appointed a committee by the State Council of Education to prepare a circular upon the training of teachers.

There ought to be a cordial sympathy among all teachers in the State, and a common desire to improve their work and to increase the estimation in which they are held by their patrons, their pupils, and the public generally.

The true object of the profession should be the best education of children. Anything that adds to the effectiveness of instruction will aid in the attainment of this object. Our present purpose is to induce an effort on the part of all teachers to obtain a better professional education and training.

Although the necessity of training would seem to be self-evident, yet very few who expect to teach pursue a course of training at the Normal school or elsewhere. The large majority enter upon the calling without special preparation therefor.

Those who should have the strongest personal interest in the training of teachers are :

1. Parents, who must certainly desire that the very best moral, mental and physical conditions prevail in the education of their children.

2. All who are expecting to become teachers. Some cities have provided teachers' training schools. The State has established a Normal school, where approved theoretical and practical instruction is given. A course in these schools furnishes a thorough preparation for teaching.

3. All who are now engaged in teaching. It is to this third class that this circular especially appeals. We who are teachers wish to consult together and to obtain all the help we can in order that we may better accomplish our work.

In the profession of teaching, as in other professions, the highest success must depend both upon a general culture and upon a technical training. We need a general culture that we may be kept from the narrowness of a merely professional life. Also, "Many-sidedness of culture makes our vision clearer and keener in particulars."

We need a technical and professional training in order that we may be successful in the details of our work. For this training there are valuable helps easily available. The following are some of the helps :

- (a) Visiting good schools. After some experience in our own school rooms we begin to know our deficiencies, and are prepared to avail ourselves of the suggestions which come to us from observing the good teaching of others.

- (b) Attending teachers' meetings, such as are held under the direction of the State, and those held by local school officers, and those of voluntary associations. If we visit schools and attend meetings, not reluctantly or with a spirit of criticism, but with an earnest purpose to learn something, we shall be greatly benefited.

(c) Studying our profession, as set forth in books treating upon the theory and practice of teaching, in books upon applied psychology and physiology, and in educational periodicals.

(d) Forming a teachers' library, even if it be a small one.

(e) Joining a teachers' reading circle.

There are two motives which may influence us in our efforts toward improvement. First, and most important, the good of the pupils intrusted to our care. Second, the higher position and the greater remuneration which we shall obtain for ourselves. In the cities and larger towns of the State trained teachers are in greater demand and are offered higher salaries than ever before.

Teachers who are well educated and well trained are independent, and can, practically, select their own field. School officers all over New England are seeking such teachers.

It is assumed that there is an increasing desire among teachers to improve their skill and keep up with the true progress in the educational world. Teachers' meetings and institutes are provided upon this supposition. These meetings are becoming more numerous and are more generally attended, year by year. If there are those who have no aspirations toward the power of a true artist, if there are many machine-workers, mere hearers of lessons, this does not affect the zeal of the respectable company of those who aspire to a high professional standing.

An increase of teaching ability is sure to produce two results. First, the school is quickened and interested so far as pupils' activities are properly employed. Whatever favorably affects the teacher has an immediate influence upon the pupils. Second, skill, even in one direction, gives tone and improvement to all else that a teacher does.

Teaching can now be studied and learned as an art. Under a trained teacher we find order growing up in the midst of great freedom; a spontaneous and cheerful response in every class exercise; occupation for every hour; a precision and an air of confidence that is utterly wanting in the work of any mere empiric. "The voluntary attention of every child is held to profitable, systematic mental occupation." This is the substance of the definition of the art of teaching, as given by a conservative and universally respected writer on Education.

The secretary of the State Board of Education sends instructors to give suggestion or direction to teachers who, in any part of the

State, are attempting self-improvement. Such teachers' classes may be organized by school officers or by teachers themselves.

We believe that all of us who are truly interested in our work are willing to undertake some deliberate and continuous course of professional study or reading which shall not be burdensome and which may be very helpful. We hope that this circular may reach every teacher and school officer in the State. We have made some general suggestions, but have marked out no definite plan for the better training of teachers. Our object has been to awaken a common interest in the subject and a desire for a cordial working together for self-improvement. We shall be glad to hear from every one who receives this communication, especially from successful teachers, who can give us friendly suggestions based upon their own experiences; especially, also, from teachers of little or no experience, who can tell us their needs; from school officers, who may better know what the public demands of a teacher.

Will you be kind enough to reply in answer to any of the questions upon the blank which is sent to you with this?

A full response may enable us to outline some practical scheme of professional training in which we can all unite. Communications may be addressed to any member of the committee.

M. S. CROSBY, Waterbury.

J. J. JENNINGS, Bristol.

C. F. CARROLL, New Britain.

Mr. Crosby said that the above report was printed and distributed throughout the state. A circular was sent also asking for an expression of opinion upon the merits of the suggestions made in the report. Replies were received from thirty or forty towns, all expressing sympathy and hearty approval.

We have learned that the state board has formed a plan which will answer most admirably what we are aiming at in the training of teachers. It is proposed to form a State Teachers' Union. The object is the improvement of public schools through the teachers, to be accomplished by meetings of the teachers, courses of study and reading for teachers, and investigation of the work done. It may be assisted by reading circles, lectures and such means. The organization is to be as simple as possible. Some one person to be chosen as director; meetings to be held once a month. At these meetings there may be papers or lectures. A regular amount of work might be laid out, as to read six pages

per day upon a given subject; selecting studies as geography, physiology, history, history of the United States and of Connecticut, civil government, history of education, language, rhetoric, principles of teaching. The advantage of such a plan would be that the teachers would be engaged in some special work and that a united work. But this is not all. The mere improvement of the teacher is nothing. The benefit to be attained is the improvement of the school. To this end certain investigations should be made as to what the teachers are accomplishing. Something new would thus be reached and much of value brought to light. There would be no dues or fees to be paid. It is simply a plan for united action on the part of the teachers of the state in studying and preparing themselves to do better work. Further information on this subject may be obtained by writing to the state secretary.

ARITHMETIC.

Mr. Brackett of Bristol, said that the object of the study of arithmetic was two fold, to fit the scholar for the actual business of life and to gain mental discipline. He thought that the latter was too often magnified, in as much as all studies are arranged to give mental discipline. The criticism upon the present method of teaching arithmetic is that it does not fit pupils for practical life. Many subjects included in the text books should be dropped from the common school course; as greatest common divisor, least common multiple, all of fractions except what is necessary for practical operations of ordinary life, circulating decimals, duo decimals, alligation, progressions, cube root mensuration, pyramids, cones, life insurance and the metric system. The study of arithmetic should begin with the school life of the child and be carried through the common school course, but more time is spent upon it than ought to be. More time might profitably be given to language, history and geography. As much time proportionately should be given to these subjects as to arithmetic, but it is not because we have attempted to teach too many subjects. The whole ground can be covered in the first five years of school life. We should spend more time in developing rapidity and accuracy in the work done.

Many of the tables might be taught in the primary and intermediate grades so as to save time in the higher grades. Many facts of percentage and interest can be taught in the lower grades.

It is within the comprehension of a child in the primary grade that fifty per cent. is one half a number.

The question arises whether promotion should depend upon proficiency in arithmetic. It always has been the criterion in schools. Some scholars can never be proficient in arithmetic. I once heard of a college professor who could never be sure of the multiplication table. If a scholar is proficient in other departments, as language, geography and history it seems unfair to refuse to permit him to advance in those studies because he cannot keep up in arithmetic. Mr. Crosby said that the public regarded arithmetic as the most important subject taught in the schools and until it was educated above that idea promotion would depend upon proficiency in that subject. Also, while it is true that in geography, history, and much of language work, pupils can go on with a part preparation, it is not possible in arithmetic. If the public could be made to understand that undue study of arithmetic tends to produce a narrow mind, we might dispense with more of it.

Mr. Ames would not reduce it to a mere bread and butter study. Properly studied it gives a pupil that power of analysis which he will need in the complicated transactions of practical life.

Mr. Tracy taught arithmetic and algebra as lower branches of logic, requiring pupils to give the reason for every operation. Thus they obtained a training not inferior to that imparted by any other study.

Secretary Hine thought that the great problem was, "what is a fair proportion of time to be devoted to arithmetic in comparison with reading or other studies." "I go into schools where pupils are utterly lost on questions of common interest, but in square and cube root they are well informed."

TEXT-BOOK ON PHYSIOLOGY.

Then followed the main topic of the meeting, the discussion of "The State Book on Physiology and Hygiene as a Text-book."

In the absence of Mr. E. D. Robbins, the subject was opened by Secretary Hine:—

"In the work which has been done it may be said :

1. That the Board had no desire to prescribe or prepare a text-book. Whatever opinion it might entertain of existing text-books, or of the way to teach any subject, there was no disposi-

tion to impose any book or method upon the people or teachers of the state.

2. There is no doubt that the action of the legislature was based upon,

a. The sentiment that scientific instruction with regard to matters of health and good habits, was desirable in itself, and needed.

Public opinion in this direction has been growing, and has found expression in the legislation of many states. One phase of this feeling, viz: that total abstinence should be taught when children are young, has been urged and made prominent in the statutes of some states.

b. The wide spread notion that existing text-books are either (1) defective, and so unworthy, or (2) too expensive, or (3) likely to be pushed and introduced in an unseemly way. There was a fear, that the school boards in all parts of the state might be attacked, and in the general scramble, no uniformity of good books would prevail. The legislature then impelled by all these considerations laid a duty upon the Board. As has been said, the task was unsought, in every view was unwelcome; especially was the Board unwilling to step outside of paths where good was possible and in which it was exercising its legitimate functions, to a new endeavor of dubious outlook.

After the duty had been imposed, the only question was how to meet the requirements of the law.

No one of the members of the Board felt himself qualified to prepare a text-book on the subject. They were sure, however, that there were men amply equipped. Hence the Board did not prepare the book, but set about finding some one to do the work; or, in the language of the law, "cause it to be prepared." The Board had, and now entertains the feeling that text-books have a different function from that usually assigned to them. Even that feeling was not imposed upon those who prepared this work. The selection was made and the book was written freely and independently. It was written solely in accordance with the views of the gentlemen whose names appear. It is fair to say that to one was committed the method of presentation, to the other was referred questions of fact, or technical questions. There was and could be no dispute as to facts, unless it be as to stimulants. It was only necessary to decide how many, and what, and in some cases, in what form facts should be stated.

The Board accepted and approved their work. It would not be fair to say that every member is willing or able to enter into a minute explanation of every word or statement, or has passed judgment upon every detail of the book, but there is a general and unequivocal approval of the book as a whole and in all its parts. This approval is based upon two grounds:—

1. The correctness and fullness of its facts, as set out by well qualified men.

2. Its superiority as a text-book; upon the last point, its value as a text-book, there is to be discussion.

The Board does not regard itself as on the defensive. Here is a book prepared by able men. The Board was acting in sight of all the state and was concerned to make a good book. It had money to carry out the duty laid upon it. The presumption is that it did, and that the book is a good one. The book should receive sound and open minded criticism, and then modifications can be made. Such criticism, however, should judge of two things.

1. Rightness of aim, and

2. Fitness of means suggested.

The purpose or aim is criticised, and the whole condemned on the ground that there is not enough on this subject, that this does not give tone to the whole. The fitness of means is impeached because what there is, is improperly arranged. To put it broadly as may be, it is asserted the book should not so much regard Physiology as a special application or department of Physiology.

The Board did not take this view. It did not understand the law to enjoin such a treatment of the subject, and did not so treat it. The fact that about one-sixth or one-seventh of the whole book is devoted to the special department is sufficient evidence that proper regard was had to that part of the law, and that it received due proportion of space. Whether that ought to have been the aim or not, the Board did not and does not now take that view. There is simply a difference of opinion, and here again the presumption is that the Board was right, and upon those who differ is the burden of proof.

The preservation of health and formation of good habits being the main thing, the applications of the subject are easily and properly introduced where they belong. If the whole were to hinge upon the part, then the book would be wholly irrational

and unworthy and no room for instruction except to those who need instruction on that one point.

As to the arrangement of the book, it is a fair matter of criticism. It is alleged that the subdivisions of the special part, might with advantage have been put under the appropriate heads in the main part; but there were difficulties in the way, and the plan of putting the subject of stimulants and narcotics by itself was adopted. Following the general plan of the book, this is a matter of no consequence because teachers can if they choose, insert any part into their teaching whenever and wherever they think it will be effective.

In fine the endeavor was to make as the law requires, special reference to the subjects mentioned in the law. Special reference has been made to the effects, etc.

The aim was to conform strictly to the law which prescribes that the Board shall prepare a text-book for teaching, etc. Whether successful or not, the book has been issued with the principles of good teaching in mind, and with the belief that in the lines indicated, all text-books should be prepared.

Professor A. B. Morrill, the author of the book, followed. "Mr. President, gentlemen and fellow-teachers of the council:—I have been especially interested in the remarks of Mr. Hine, because I had not heard so full a statement of the position of the Board. I was left entirely free to do what I thought was proper, but I was very generously helped by the members of the Board whenever I felt the need.

I approach the subject from the position of a schoolmaster, and I consider the question before us to be this: 'Shall text-books be more curtailed than they have been? Shall they be helps to the teacher?' I must emphasize the fact that we both consider the subject from the same standpoint. Are we thinking of a text-book to be used in a high or a low grade, for pupils of good ability or inferior? If we take separate premises we could justify entirely different books. A book for the High School grade would be different than one for a lower grade, because the pupil has had some training upon that subject. I am talking about a book where a teacher first feels the need of a book to introduce pupils to the subject. We ought to keep before us the necessity of the average pupil and those below the average. It seems to me that books heretofore have been prepared for bright pupils. But the school is most concerned for those pupils who

belong to the lower strata, that need the encouragement and sympathy of the teacher and the help of the school. These are the two premises I lay down. I keep in mind the function of the school; to rouse processes of thought so that they shall become habits. That must be the work of the school. If I make statements as for one function, I can justify that, but if you are thinking of a book to give facts and information you can justify that. We must keep to the premises.

I believe the book ought to be instrumental in helping the teacher to work out his well defined purposes, but the teacher is the active agent. Books imply by their fullness of detail that they are to supplant the teacher. A book is passive. Pupils must be trained to get as much as possible outside of the book. There should be a difference between a book to be given to pupils in the presence of a live, active teacher, and one where there is no such agency. There should be a limited amount of instruction. Books should contain important truths. I should like to have those truths few, that there may be time for reflection and appreciation. The number must be determined by experiment and observation. We take what is handed down and pass it along. Why not look around and decide inductively what we need. Books have presented such a multiplicity of details that pupils have been overpowered. I am speaking of pupils of immature age. We cannot expect them to discriminate. It is pretty hard for teachers to discriminate, while teaching, what are the most important things. Pupils do not do it. They attempt to get everything. While so doing they are so much engrossed that they have no time for reflection and appreciation. Certain truths can be put into a book. Tasks that can be realized, tasks in which the details shall be brought forth by the pupils together with the teacher. Such truths ought to stand out, to be dwelt upon, to be so incorporated into the mental fiber of the pupil that they cannot be forgotten. We cannot think that two and two make anything but four, or that c-a-t spells any word but 'cat.' That requires time, long continued effort, and a limitation of the number of truths. For example, nutrition is a process of replenishing, activity is a process of consuming. Something is necessary for replenishing. Food is for doing that. Digestion is a process of changing food to go into the blood. A clear understanding of these truths is necessary for the formation of proper habits. They should be stated without diverting details to make

it interesting. I would declare the fact that certain kinds of food are necessary and important for the purpose of replenishing. I would dwell upon this so that pupils would choose the best food by instinct. Just as in morality, we go by a fruit stand without stealing, because it is a cardinal principle instilled within us. Digestion of the starch foods in the mouth is an important fact that should be stated so that pupils cannot be diverted from it. These are points that cannot be omitted. I dwell upon these. I begin to talk about the pancreatic juice or the bile before they know what they are. I leave definition until they get to a position where they need it. After the pupil has gone over the ground and got the salient points, he is ready for a private book to study. He will read with profit when he can appreciate books. Don't we appreciate those books that we read after we have an insight into the subject? That stimulating must be done by the teacher with the help of a book that does not overwhelm the pupils with details. I wish to call attention to one or two things to illustrate what I have been suggesting. Here is a book on Chemistry that I compiled about ten years ago. In the preface I made these statements: 'I have undertaken to write a book which pupils shall use as a guide. All that they can learn any other way has been omitted. Definitions have been inserted only where they are needed. After they have used a word emblematic of an idea they learn the meaning. An effort has been made to use such English as could be understood.' I find that I have been actuated by the same motives in preparing the State book of physiology. There should be a difference between a text-book and a treatise. I used to take twenty weeks for two-thirds of a book on chemistry which was designed for a fourteen weeks' course. Here is a passage on the coal period from a text-book on chemistry: 'The climate was tropical, vegetation was luxuriant, the air was filled with the hum of the insect and the song of the bird.' The main point was that wood when covered with water and subjected to heat formed coal, and that is all I want in a text-book. I will supply the 'hum of the insect and the song of the bird.' The main point—how coal was formed—escaped the pupils who used this book. I take up a book by Rosencrans, a German university teacher for forty-six years, and he says, 'A text-book must be differently written, according as it is wanted for private study, or is to be accompanied by oral explanation. If the former, it must go more into details. If the second, it should be

shorter, composed of a few, clear, axiomatic postulates which have a keenness which leaves something to be guessed.' When we teach pupils that food must be digested, ask them why they should chew it. The teeth are covered with enamel. The enamel bears the same relation to the teeth that a glass jar does to the fruit within. Ask them why they should not use pins to clean their teeth. Many things could be guessed. The State book is such a sketch arranged with a view to a complete book to be supplied by the living word of the teacher."

President Jennings explained that the State book had been taken up because some persons had assiduously represented through the State, that the book was universally deemed a failure. Those persons were book agents.

Secretary Hine was asked from what sources the opposition to the book came. He did not think it was confined to any locality or class. The principal opposition he had paid any attention to, came from teachers who thought it should be taught only to older pupils and who objected to the method of teaching in this book.

Mr. A. B. Fifield, speaking for New Haven, was surprised to learn for the first time that the book had met violent opposition in his city. "We have principals' meetings where we talk over subjects with perfect freedom. We differ on many, and state our opinions freely; but there has been no adverse criticism or organized opposition to this book. The book is different from what many expected. Some 'take-it-easy' teachers thought it was to be a kind of catechism. In one of our principals' meetings a very great majority were in favor of using it in the lowest grades, making such application as they could. We put the books into the hands of the pupils only in the seventh and eighth grades."

Principal Carroll said, "I think it is truer than we realize that teachers were surprised when this text-book was sent them. If we recollect, I think this is the first text-book ever written by the judgment of the author. Publishers will not depart from the plan of the first text-book ever written. The opinion that prevails is that a text-book must contain a compendium of facts. The most important question that has come before this council is, 'What should a text-book be?' There are teachers who are free to say that a book is in the way as a means of instruction."

Mr. Northend thought that if our teachers were what they ought to be they could impart all necessary instruction on this subject without a book.

Mr. Ames: "I am glad to hear the remarks of Mr. Fifield as to how the text-book was received in New Haven. I saw a statement that it was not meeting with favor. One paper said that they called the book vulgar. I see no reason why the book as a whole cannot accomplish good results. There are two or three expressions which I wish had been omitted as a matter of delicacy. It seems to me it might have been written so as to be more interesting." Principal Carroll asked what Mr. Ames considered an entertaining book on physiology or arithmetic. Mr. Ames replied that Colonel Higginson's United States History was entertaining and instructive, Hatfield's book on Physiology is entertaining. A child would sit down and read it through. Principal Carroll thought such a book would defeat the purpose for which a text-book was designed.

Mr. Wolcott thought the importance of the subject justified the use of the expressions criticised. Mr. Tracy facetiously welcomed the book from the standpoint of a poor teacher. "A poor teacher likes to impress pupils with an idea that he knows something. If he knows a single fact outside this book he has an opportunity to get the credit of it. Then, too, there is little in it for a poor teacher to compel pupils to memorize. Seriously, it is well arranged for a review of the subject."

The discussion was closed by Professor Morrill. "When we wish pupils to reproduce what is in the book, we shall be sure that their attention will not be diverted. I wonder how much we could explain about ten important things we learned in physical geography. I could not explain two because I had a text-book which gave everything in full. In my text-book on chemistry, I left out everything I could teach better without a book. I found that when I was doing an experiment the text-book told them what was coming. I wanted to get rid of the effect of that book. I found many pupils who could do more than I provided for them. I had a class of 140, so I put the books on the table and those who wanted them could take them. I put no multiplicity of tasks before them, but they got whatever they could from the stimulus of a few facts. I put into the State book a few facts which the pupils ought to know. If pupils get it all they will know the important facts. Upon the delicacy of those expres-

sions, what harm is done if there is a little embarrassment? Don't the benefits more than compensate? The teacher must prepare himself to present the subject with dignity and seriousness. I do not hesitate to talk with pupils and I cannot think of one instance where pupils looked at one another or gave indications that they thought the expressions vulgar."

Upon the motion of Mr. Ames, the council passed the following resolution:

Resolved, That the council fully approves both the text-book of Physiology, prepared under the direction of the State Board of Education, and its early introduction into the schools of the State.

Three new members were accepted and officers elected as follows:

President—J. G. Lewis of New Haven; Vice-President—W. F. Gordy of Hartford; Secretary and Treasurer—F. A. Brackett of Bristol; Executive Committee—G. H. Tracy of Bristol, A. B. Fifield of New Haven, A. P. Somes of Danielsonville; J. J. Jennings of Bristol, *ex officio*.



A LIST OF THE BOARDS OF SCHOOL VISITORS, TOWN SCHOOL COMMITTEES, AND BOARDS OF EDUCATION.

The Chairman is indicated in each case by *C*; the Secretary by *S*; and
Acting Visitor by *A. V.* The year when term expires
is given after each name.

ANDOVER.			BETHANY.		
R. E. Phelps, <i>A. V.</i>	Andover	1888	S. R. Woodward, <i>S., A. V.</i>	Bethany	1888
H. G. Dorrance, <i>S.</i>	"	1888	Ernest Hotchkiss	"	1888
C. H. Loomis, <i>C.</i>	"	1889	Samuel G. Davidson, <i>C.</i>	"	1889
Walter Abbey	"	1889			
C. L. Backus	"	1890			
M. P. Yeomans	"	1890			
ASHFORD.			BETHEL.		
Geo. Platt, <i>C., A. V.</i>	Warrenville	1888	Rev. H. L. Slack, <i>C., A. V.</i>	Bethel	1888
G. E. S. Amidon, <i>S., A. V.</i>	"	1888	H. A. Gilbert	"	1888
Albert Hammond	Ashford	1889	Rev. Geo. P. Torrence, <i>A. V.</i>	"	1889
H. W. Morey	Westford	1889	L. D. Judd, <i>S.</i>	"	1889
Wm. Platt	Warrenville	1890	D. R. Van Riper	"	1890
John A. Brown	"	1890	Rev. F. G. Howell, <i>A. V.</i>	"	1890
AVON.			BETHLEHEM.		
Dan. D. Derrin	Avon	1888	M. S. Todd, <i>S., A. V.</i>	West Morris	1888
Rev. Richard Scoles	"	1888	Wm. R. Harrison, <i>A. V.</i>	Bethlehem	1888
Harvey Woodford, 2d, <i>C.</i>	"	1889	Geo. C. Stone	"	1889
Joseph S. Woodford	"	1889	Samuel P. Hayes, <i>C.</i>	"	1889
Jarvis Edgerton	"	1890	N. L. Bloss	"	1889
M. C. Woodford, <i>S., A. V.</i>	"	1890	Wm. T. Kapson	"	1889
BARKHAMSTED.			BLOOMFIELD.		
Sheldon Merrill, <i>C.</i>	Barkhamsted	1888	Alfred C. Case	Bloomfield	1888
Frank L. Stevens, <i>A. V.</i>	Riverton	1888	Francis G. Barber	"	1888
Monroe Hart, <i>S.</i>	Barkhamsted	1889	Nathan F. Miller, <i>C.</i>	"	1888
Edward J. Youngs	Pleasant Valley	1889	Samuel B. Newberry	No.	1889
Geo. A. Weed	North Canton	1890	Francis G. Strickland	Windsor	1889
Daniel Youngs	Pleasant Valley	1890	Alfred N. Filley	Bloomfield	1889
			John Wilcox	"	1890
			Dr. Henry Gray, <i>S., A. V.</i>	"	1890
			Franklin B. Miller	"	1890
BEACON FALLS.			BOLTON.		
Emerson J. Terrell, <i>S.</i>	Beacon Falls	1888	Orlando Sperry, <i>C.</i>	Bolton	1888
Homer D. Bronson, <i>C.</i>	"	1888	Dr. Chas. F. Sumner, <i>S., A. V.</i>	"	1888
Rev. Edmund R. Foley, <i>A. V.</i>	"	1888	Chauncey T. Hunt	Quarryville	1889
			Isaac K. Thompson	"	1889
			William B. Williams	Bolton	1890
			Charles E. Carpenter	"	1890
BERLIN.			BOZRAH.		
James Roche	Kensington	1888	Charles A. Gager, <i>C.</i>	Bozrah	1888
W. W. Mildrum	East Berlin	1888	Dr. Samuel Johnson	"	1888
A. A. Barnes	"	1889	Rev. Geo. A. Miller, <i>S., A. V.</i>	"	1888
E. C. Woodruff, <i>S., A. V.</i>	Berlin	1889			
Samuel F. Talmage, <i>C.</i>	"	1890			
Rev. A. J. Benedict	Kensington	1890			

BRANFORD.*

Dr. C. W. Gaylord, <i>A. V.</i>	Branford	1888
E. J. Buell	"	1888
Wm. Page	Stony Creek	1888
Thos. Carney	Branford	1888
Chas. Hoadley	"	1889
Henry Jourdan	"	1889
H. W. Averill, <i>S.</i>	"	1889
E. J. Bird	"	1889
Edmund Zacher, <i>C.</i>	"	1890
L. J. Nichols	"	1890
J. U. Baldwin	"	1890
Daniel O'Brien	"	1890

BRIDGEPORT.*

Julius S. Hanover, <i>C. A. V.</i>	Bridgeport	1888
Nathaniel Wheeler, <i>A. V.</i>	"	1888
David Ginand, <i>A. V.</i>	"	1888
John H. Colgan, <i>A. V.</i>	"	1888
Peter W. Wren, <i>A. V.</i>	"	1889
Joel Farist, <i>A. V.</i>	"	1889
Frederick Hurd, <i>A. V.</i>	"	1889
Wilfred E. Norton, <i>A. V.</i>	"	1889
Morris B. Beardsley, <i>S., A. V.</i>	"	1890
Emory F. Strong, <i>A. V.</i>	"	1890
Frederick A. Rice, <i>A. V.</i>	"	1890
Thomas F. Martin, <i>A. V.</i>	"	1890
H. M. Harrington, <i>Supt.</i>	"	1890

BRIDGEWATER.

Burr Mallett, <i>C.</i>	Bridgewater	1888
Stephen P. Treat	"	1888
Horace N. Sanford	"	1889
Eli Sturdevant, <i>S., A. V.</i>	"	1889
Elmer Frost	"	1890
John F. Wells	"	1890

BRISTOL.

C. W. Brown	Forestville	1888
Edward E. Newell, <i>C.</i>	Bristol	1888
Rev. M. B. Roddan	"	1889
John J. Jennings, <i>S., A. V.</i>	"	1889
H. S. Bartholomew	"	1890
Dr. J. J. Wilson	"	1890

BROOKFIELD.

Rev. A. C. Pierce, <i>C., A. V.</i>	Br'kfld Cen.	1888
Geo. C. Jones	"	1888
B. T. Jackson	Brookfield	1889
John Thornhill	Brookfield Centre	1889
Miss Amelia Northrop	"	1890
Rev. E. L. Whitcome, <i>S., A. V.</i>	"	1890

BROOKLYN.

H. H. Green, <i>C.</i>	Danielsonville	1888
Rev. E. S. Beard, <i>A. V.</i>	Brooklyn	1888
Dr. A. H. Tanner	"	1889
Albert D. Putnam	"	1889
Rev. A. J. Culp	"	1890
Frank Day, <i>S., A. V.</i>	Danielsonville	1890

BURLINGTON.

Rev. Chas. H. Smith	Burlington	1888
Rev. M. J. Crowley, <i>A. V.</i>	Collinsville	1888
Burdette A. Peck, <i>A. V.</i>	Whigville	1889
Romeo Elton, <i>S., A. V.</i>	Burlington	1889
Frederick J. Broadbent	"	1890
James M. Webster	"	1890

CANAAH.

Rev. D. M. Moore, <i>A. V.</i>	Falls Village	1888
Dwight E. Dean, <i>S.</i>	"	1888
Myron H. Dean, <i>A. V.</i>	"	1889
Major A. Nickerson	"	1889
Nelson J. Dean	Huntsville	1890
Rev. C. H. Reynolds	Falls Village	1890

CANTERBURY.

John T. Shea	Canterbury	1888
Albert C. Green, <i>C., A. V.</i>	Westminster	1888
Rev. S. B. Carter, <i>S., A. V.</i>	"	1888
Henry Kendall	Canterbury	1889
Andrew J. Clark	"	1889
Elderkin Waldo	"	1889
C. S. Burlingame, <i>A. V.</i>	"	1890
John H. Peck	Hanover	1890
Albert R. Safford	Canterbury	1890

CANTON.

James Case, <i>A. V.</i>	Canton Center	1888
D. C. Holbrook	Collinsville	1888
W. W. Bidwell, <i>S., A. V.</i>	Collinsville	1889
B. O. Higby, <i>C., A. V.</i>	Canton	1889
C. H. Blair	Collinsville	1890
Rev. F. Alvord, <i>A. V.</i>	Canton Centre	1890

CHAPLIN.

Rev. F. Williams, <i>S., A. V.</i>	Chaplin	1888
Wm. N. Webster	"	1888
C. Edwin Griggs, <i>C.</i>	"	1889
Chas. H. Winchester	"	1889
Rev. Nathaniel Beach	"	1890
Origen Bennett	"	1890

CHATHAM.

A. H. Conklin, <i>C.</i>	East Hampton	1888
W. W. B. Markham	"	1888
Levi Jewett, <i>S., A. V.</i>	Cobalt	1888
F. D. Strong	East Hampton	1889
H. D. Chapman	"	1889
B. D. Hurd	Middle Haddam	1889
Davis Strong	"	1890
E. G. Cone	East Hampton	1890
H. B. Brown	"	1890

CHESHIRE.

T. A. Cook, <i>S., A. V.</i>	Cheshire	1888
Frederick Ives	West Cheshire	1888
Geo. R. Johnson, <i>A. V.</i>	Cheshire	1889
Dr. Geo. C. F. Williams, <i>C.</i>	"	1889
Rev. S. J. Horton	"	1890
Martin H. Brennan	Waterbury	1890

CHESTER.

Ambrose Pratt, <i>C.</i>	Chester	1888
Dr. S. W. Turner, <i>S., A. V.</i>	"	1888
W. F. Wilcox	"	1888

CLINTON.*

Geo. E. Elliot, <i>A. V.</i>	Clinton	1888
Jas. L. Davis	"	1888
D. H. Manwaring	"	1888
Thos. Anderson	"	1888
Selden S. Carter	"	1889
H. L. Wellman, <i>C.</i>	"	1889
Wm. Kirtland	"	1889
David L. Wright	"	1889
Philo Kelsey	"	1890
Henry J. Hurd	"	1890
A. H. Stevens, <i>S., A. V.</i>	"	1890
Jas. A. Spencer	"	1890

COLCHESTER.

Irsael F. Loomis	Westchester	1888
Alden A. Baker, <i>A. V.</i>	Colchester	1888
Rev. John Cooney	"	1889
Samuel P. Willard, <i>S., A. V.</i>	"	1889
R. R. Carrington, <i>C.</i>	"	1890
D. S. Bigelow, <i>A. V.</i>	Westchester	1890

COLEBROOK.

Howard Smith.....	Colebrook..	1888
John A. Deming.....	Robertsville	1888
T. Persons.....	Colebrook River	1888
S. A. Cooper.....	Colebrook..	1889
Lucius O. Bass.....	"	1889
P. Bowman, S., A. V.....	North Colebrook	1889
Dennis Baxter.....	Colebrook River	1890
Wolcott Deming, C.....	Robertsville	1890
Hiram S. Hamilton.....	Colebrook..	1890

COLUMBIA.

William A. Collins, C.....	Columbia..	1888
William H. Yeomans.....	"	1888
J. E. H. Gates, S., A. V.....	"	1889
W. Clifford Robinson.....	Hebron.....	1889
Joseph Hutchins.....	Columbia..	1890
Norman H. Clark.....	"	1890

CORNWALL.

L. J. Nickerson, S., A. V.....	W. Cornwall	1888
V. C. Beers.....	Cornwall Bridge	1888
Philo M. Kellogg, A. V.....	Cornwall	1889
Chas. M. Hall.....	W. Cornwall	1889
Geo. L. Miner, C.....	Cornwall	1890
S. B. Johnson.....	"	1890

COVENTRY.

Fred S. Sweet, A. V.....	S. Coventry	1888
H. Perkins Topliff, A. V.....	"	1888
John Brown, A. V.....	Merrrow	1889
Charles R. Hall, A. V.....	Coventry	1889
Alex. S. Hawkins, C., A. V.....	Willimantic	1890
Andrew Kingsbury, S., A. V.....	Coventry	1890

CROMWELL.

Rev. John Murphy.....	Cromwell	1888
Timothy Simpson, S.....	"	1888
L. H. Williams.....	"	1889
F. W. Bliss.....	"	1889
Rev. Wm. A. Stickney.....	"	1890
Rev. H. G. Marshall, C., A. V.....	"	1890

DANBURY.

Dr. Geo. Gilbert, A. V.....	Danbury	1888
Wm. F. Taylor, C.....	"	1888
Howard B. Scott, A. V.....	"	1889
Dr. P. H. Lynch, A. V.....	"	1889
Wm. Lane, A. V.....	"	1890
Rev. A. C. Hubbard, S., A. V.....	"	1890

DARIEN.

Rev. S. C. Austin, C., A. V.....	Darien	1888
Samuel B. Belden.....	Springdale	1888
Orlando Whitney.....	Darien	1888
Nathan Dauchey.....	Noroton	1889
Chas. Raymond.....	Darien	1889
Wm. E. Street.....	"	1889
Rev. Louis French, S., A. V.....	Noroton	1890
Albert H. Schofield.....	Darien	1890
J. W. Emmons.....	Glenbrook	1890

DERBY.

Rev. Walter C. Roberts.....	Ansonia	1888
Edson L. Bryant.....	"	1888
Wm. D. O'Brien.....	Birmingham	1888
Edwin B. Gager, S.....	"	1889
Albert S. Terry.....	Ansonia	1889
Fred. W. Holden.....	"	1889
Clark N. Rogers, C.....	Birmingham	1890
Dr. Geo. L. Beardsley, A. V.....	"	1890
T. J. O'Sullivan.....	"	1890

DURHAM.

H. H. Newton.....	Durham	1888
H. I. Nettleton.....	Durham Centre	1888
Alvin P. Roberts, C.....	Durham	1889
Wm. T. Coe.....	Durham Centre	1889
Geo. W. Newton, S.....	"	1890
S. A. Seward.....	"	1890
Rev. J. A. Churchill, A. V.....	"	"

EASTFORD.

C. E. Barrows, C.....	Eastford	1888
A. L. Johnson.....	"	1888
S. O. Bowen.....	"	1889
S. A. Wheaton.....	Phoenixville	1889
E. W. Warren.....	Eastford	1890
Rev. C. M. Jones, A. V.....	"	1890

EAST GRANBY.

Jefferson R. Holcomb.....	East Granby	1888
John A. Allison.....	Tariffville	1888
D. A. Strong.....	East Granby	1889
B. E. Smith, S., A. V.....	East Granby	1889
F. F. Stevens, C.....	Copper Hill	1890
B. N. Alderman.....	East Granby	1890

EAST HADDAM.

Rev. A. T. Parsons, C., A. V.....	E. Haddam	1888
C. W. Chapman, S., A. V.....	Millington	1888
C. B. Warner, A. V.....	East Haddam	1889
Norris W. Rathburn, A. V.....	Millington	1889
Rev. T. W. Kneeland, A. V.....	Moodus	1890
E. E. Bogue, A. V.....	Millington	1890

EAST HARTFORD.

Rev. G. A. Bowman, A. V.....	E. Hartford	1888
Rev. James J. Gleason.....	"	1888
A. S. Bailey.....	"	1888
Patrick Garvan, C.....	"	1889
J. O. Goodwin, S., A. V.....	"	1889
Wm. H. Olmstead.....	"	1889
Arthur W. Eaton.....	Burnside	1890
Chas. W. Porter.....	Naubuc	1890
Norman S. Brewer.....	Hockanum	1890

EAST HAVEN.

Dwight W. Tuttle, S., A. V.....	East Haven	1888
Chas. H. Fowler.....	New Haven	1888
Grove J. Tuttle, A. V.....	East Haven	1889
Rev. Daniel J. Clark.....	"	1889
Andrew J. Grannis.....	Fair Haven	1890
Ebenezer Gilbert.....	East Haven	1890

EAST LYME.

E. L. Beckwith, S., A. V.....	East Lyme	1888
Asa E. S. Bush.....	Niantic	1888
Dr. Daniel Calkins, C.....	East Lyme	1889
Irving E. Watrous.....	"	1889
Calvin S. Davis.....	Niantic	1890
Daniel S. Gates.....	"	1890

EASTON.

George J. Banks, A. V.....	Easton	1888
Miss Emily Lewis, A. V.....	"	1888
Chas. F. Silliman, C., A. V.....	"	1889
Mrs. Ettie Tucker, A. V.....	Redding	1889
Henry Osborne, A. V.....	Easton	1890
Chas. S. Everett, A. V.....	"	1890

EAST WINDSOR.

J. S. Allen, C.	Broad Brook	1888
T. J. Adams	"	1888
A. J. Weed	Warehouse Point	1888
M. H. Bancroft	"	1889
J. O. Ellsworth	Broad Brook	1889
J. B. Noble, A. V.	E. Windsor Hill	1889
O. S. Wood, S. A. V.	Windsorville	1890
S. Terry Wells	E. Windsor	1890
Chas. E. Woodward	Warehouse Point	1890

ELLINGTON.

Dr. J. A. Warren, C. A. V.	Ellington	1888
Henry K. Warner	"	1888
J. T. McKnight, S. A. V.	"	1888
Homer S. Allen	"	1889
Chas. B. Sikes	"	1889
James A. Stacy	Square Pond	1889
Carlos R. Sadd	Ellington	1890
Merrick Kibbe	"	1890
Sylvester Morris	"	1890

ENFIELD.

Dr. E. F. Parsons	Thompsonville	1888
Dr. G. T. Finch, A. V.	"	1888
Michael A. Bailey	Scitico	1888
Jos. N. Allen	Enfield	1889
Rev. John F. George	Thompsonville	1889
Rev. W. A. Luce, A. V.	Hazardville	1889
Rev. Geo. W. Winch, C. A. V.	Enfield	1890
Samuel A. Booth, A. V.	"	1890
J. B. Houston, S. A. V.	Thompsonville	1890

ESSEX.*

R. H. Mather	Essex	1888
F. A. Shailer	"	1888
H. H. Williams	Centerbrook	1888
J. E. Northrop	Ivoryton	1889
C. M. Parmelee	"	1889
Lorenzo Beckwith	Centerbrook	1889
Dr. C. H. Hubbard, S. A. V.	Essex	1889
James Phelps	"	1890
E. W. Wetmore, C. A. V.	"	1890
H. J. Wallace	"	1890
J. H. Vorce	"	1890
A. P. Tucker	"	1890
C. Isham, Supt.	"	1890

FAIRFIELD.*

Rev. J. E. Bushnell, A. V.	Fairfield	1888
Rev. C. G. Adams, S. A. V.	Southport	1888
Edmund Hobart, A. V.	Fairfield	1889
J. N. Standish, A. V.	Samp Mortar	1889
J. J. Jones, C. A. V.	Fairfield	1890
T. H. Wheeler, A. V.	Samp Mortar	1890

FARMINGTON.

Samuel Frisbie	Unionville	1888
Rev. C. S. Lane, A. V.	"	1888
James L. Cowles	Farmington	1888
Julius Gay, S.	"	1889
Erastus Gay, C.	"	1889
Rev. Geo. W. Allen	Unionville	1889
Rev. R. C. Searing	"	1890
Rev. Wm. H. Redding	"	1890
Rev. D. N. Barney, A. V.	Farmington	1890
Julia S. Brandegee, A. V.	"	1890

FRANKLIN.

Henry Bellows, A. V.	Baltic	1888
Geo. L. Ladd, A. V.	N. Franklin	1888
G. H. Griffing, S. A. V.	Franklin	1889
G. E. Starkweather, A. V.	"	1889
C. H. Lathrop, C. A. V.	N. Franklin	1890
John J. Lamb, A. V.	Franklin	1890

GLASTONBURY.

J. W. Hubbard, S. A. V.	S. Glastonbury	1888
Henry E. Loomis, A. V.	Glastonbury	1888
Wm. H. Griswold, A. V.	"	1889
L. E. Crosby, C. A. V.	E. " "	1889
Rev. Austin Gardner, A. V.	Buckingham	1890
Wm. J. Flood, A. V.	S. Glastonbury	1890

GOSHEN.

Henry Norton	Goshen	1888
John H. Wadhams	"	1888
Frederick E. Hurlbut	"	1889
W. W. Norton, C. A. V.	"	1889
John D. Barton, S. A. V.	W. Goshen	1890
S. A. Bartholomew	Goshen	1890

GRANBY.

N. Kendall	Granby	1888
Condit Hayes	"	1888
W. A. Stratton	"	1888
L. C. Spring, C. A. V.	"	1889
Rev. C. C. Campbell, A. V.	"	1889
F. I. Jewett, S. A. V.	"	1889
H. A. Dibble	N. Granby	1890
H. I. Dewey	"	1890
Henry Viets	"	1890

GREENWICH.

Dr. James L. Marshall, A. V.	Greenwich	1888
William White, A. V.	"	1888
William S. Craft, A. V.	"	1889
Silas E. Mead, A. V.	"	1889
Amasa A. Marks, C. A. V.	"	1890
Myron L. Mason, S. A. V.	"	1890

GRISWOLD.

B. F. Billings	Glasgo	1888
J. E. Leonard	Jewett City	1888
Alex. Lewis	Glasgo	1888
J. D. Eccleston, C.	"	1889
E. A. Geer	Griswold	1889
E. C. Kegwin, S. A. V.	Jewett City	1889
J. H. Finn	"	1890
Samuel Barber	"	1890
Rev. F. P. O'Keef	"	1890

GROTON.

S. S. Lamb, S. A. V.	Mystic	1888
Joseph Hull, A. V.	"	1888
Rev. N. T. Allen, A. V.	Groton	1889
D. A. Daboll, Jr., A. V.	Center Groton	1889
Horace Clift, C. A. V.	Mystic Bridge	1890
Nelson Morgan, A. V.	Noank	1890

GUILFORD.

Rev. G. W. Banks	Guilford	1888
Chas. Griswold, C.	"	1888
H. S. Widmore	"	1888
E. M. Vittum, S. A. V.	"	1889
E. W. Rossiter	N. Guilford	1889
Henry Spencer	Guilford	1889
Rev. W. G. Andrews, D. D. A. V.	"	1890
Jerome Coan	N. Guilford	1890
Lewis A. Kimberly	Guilford	1890
F. R. Kahler, A. V.	N. Guilford	1890

HADDAM.

Orrin Shailer	Haddam	1888
Bazaleel Shailer, C.	"	1888
A. W. Tyler, S. A. V.	Tylerville	1888
Gilbert M. Clark	Haddam Neck	1889
Robert S. Cruttenden	Higganum	1889
Chas. O. Gillette	Haddam Neck	1889
E. P. Arnold	Higganum	1890
Ralph E. Thayer	"	1890
Dr. S. W. Noyes	"	1890

* Town School Committee.

HAMDEN.

Ellsworth B. Cooper	Hamden	1888
Patrick Maher	Mt. Carmel	1888
J. M. Hendinger, 72 Franklin Street	New Haven	1888
Geo. H. Allen	Mt. Carmel	1889
John Kinney	"	1889
Elias Dickerman, S., A. V.		
Box 820	New Haven	1889
Rev. L. H. Higgins, C.	Mt. Carmel	1890
Elsworth A. Bradley	Hamden	1890
John Miles	"	1890

HAMPTON.

Addison J. Greenslit	Hampton	1888
Harvey Converse	"	1888
Geo. W. Bennett	"	1888
David Greenslit, C.	"	1889
Edgar H. Newton	"	1889
Geo. H. Kimball	"	1889
J. W. Congdon, S., A. V.	"	1890
Henry Clapp	Rawson	1890
Myron Palmer	"	1890

HARTFORD.

Charles E. Gross, S.	274 Main st.	1888
George O. Kinne	9 Charter Oak st.	1888
George R. Shepard	667 Asylum st.	1888
J. H. Brocklesby	274 Main st.	1889
John E. Scanlon	25 Asylum st.	1889
Dr. Melancthon Storrs, C.	91 Ann st.	1889
Sidney E. Clarke	297 Main st.	1890
Rev. Francis Goodwin	291 Main st.	1890
Wm. Waldo Hyde, A. V.	274 Main st.	1890

HARTLAND.

Amos Osborn	Riverton	1888
Uria Nickerson	"	1888
O. P. Cowdry	E. Hartland	1889
E. A. Gaylord	W. Hartland	1889
A. B. Gains, C., A. V.	E. Hartland	1890
G. B. Cornish, S., A. V.	W. Hartland	1890

HARWINTON.

David B. Mansfield	Campville	1888
E. M. Hayes, S., A. V.	Harwinton	1888
Albert W. Buell, C.	"	1889
Henry D. Reynolds	"	1889
Martin L. Goodwin	"	1890
Ames Scoville	"	1890

HEBRON.

Geo. Norton	Gilead	1888
A. W. Hutchinson	"	1888
Rev. J. W. Ellsworth, A. V.	Hebron	1888
B. S. Ellis	Gilead	1889
F. C. Bissell, C.	Hebron	1889
C. L. Phelps	"	1889
L. A. Waldo, S., A. V.	"	1890
David N. Jones	Turnerville	1890
Hart Buell	Gilead	1890

HUNTINGTON.

Horace Wheeler, A. V.	Birmingham	1888
G. A. Shelton, M.D.	"	1888
Lewis B. Gray	Monroe	1889
Edward S. Hawley, S.	Huntington	1889
Lewis W. Booth	Birmingham	1890
Daniel S. Brinsmade, C.	"	1890

KENT.

John Slosson	Kent Furnace	1888
C. L. Spooner, S., A. V.	Kent	1888
I. J. Beardsley, A. V.	New Preston	1889
Gilbert A. Vincent	Kent	1889
Rev. G. W. Griffith, C., A. V.	"	1890
R. M. Gibbs, A. V.	North Kent	1890

KILLINGLY.

Anthony Ames, S., A. V.	Danielsonville	1888
Dr. Asahel E. Darling	Killingly	1888
Dr. Edwin A. Hill	E. Killingly	1888
Geo. Lloyd	Danielsonville	1889
Chauncey H. Wright	S. Killingly	1889
Henry C. Atwood	Killingly	1889
Rev. G. R. Warner, C., A. V.		
	Danielsonville	1890
Marshall P. Dowe	"	1890
Herbert C. Columbus	E. Killingly	1890

KILLINGWORTH.

W. E. Griswold, C.	Madison	1890
H. L. Nettleton	Killingworth	1890
L. L. Nettleton, S., A. V.	Madison	1890

LEBANON.

Dr. W. P. Barber, C., A. V.	Lebanon	1888
Albert G. Kneeland, A. V.	"	1888
Isaac Gillette, S., A. V.	"	1890

LEDYARD.

Albert F. Brown	Mystic	1888
Isaac G. Geer, A. V.	Poquetannoc	1888
Thomas Latham, C.	Gales Ferry	1888
Isaac A. Chapman	Ledyard	1889
Geo. Fanning, S., A. V.	"	1889
Geo. Gray	"	1889
Chas. B. Beckwith	"	1890
Moses W. Gallup	Mystic	1890

LISBON.

Henry Lyon, A. V.	Jewett City	1888
Geo. A. Ross	"	1888
O. M. Bosworth, C.	"	1889
I. C. Francis	"	1889
C. J. Bromley	"	1890
A. A. Hills, S.	Greenville	1890

LITCHFIELD.*

Wm. Deming, C., A. V.	Litchfield	1888
D. C. Kilbourne, S., A. V.	"	1888
Chas. I. Page, A. V.	Milton	1889
J. H. Hopkins, A. V.	Northfield	1889
Geo. W. Mason, A. V.	Litchfield	1890
T. L. Jennings, A. V.	Bantam	1890

LYME.

Israel D. Burnham	Hadlyme	1888
Dr. J. G. Ely, C.	Hamburgh	1888
Nelson H. Bill	Lyme	1889
Rev. B. B. Hopkinson	"	1889
Wm. C. Spencer	Hadlyme	1890
Henry B. Sisson, S., A. V.	Hamburgh	1890

MADISON.

Geo. Munger, C.	East River	1888
J. Myron Hull	Madison	1888
Frank C. Dowd	"	1889
Nathan Howell	East River	1889
Rev. J. A. Gallup, S.	Madison	1890
Chas. H. Parker	N. Madison	1890
J. L. Parker, A. V.	Madison	1890
Rev. W. E. B. Moore, A. V.	N. Madison	1890

MANCHESTER.

Joseph B. Latham, Jr.,	Manchester.	1888
Dr. O. B. Taylor, S.,	<i>A. V.</i>	"
	Manchester Green	1888
Dr. C. W. Jacques,	Manchester.	1889
John S. Cheney,	S. Manchester	1889
Rev. S. W. Robbins,	<i>A. V.</i> Manchester.	1890
Rev. J. F. Campbell,	<i>A. V.</i> Manchester.	1890

MANSFIELD.

L. P. Chamberlain,	Mansfield.	1888
John S. Hanks,	Gurleyville	1888
Andrew M. Grant,	Mount Hope	1888
S. D. Yeomans,	Mansfield Center	1889
Rev. K. B. Glidden, S.,	<i>A. V.</i>	1889
E. G. Sumner, M.D.,	C.	1889
I. P. Fenton,	"	1890
R. P. Barrows,	"	1890
H. Huntington, <i>A. V.</i> ,	Mansfield Depot	

MARLBOROUGH.

Rev. H. M. Vail, C.,	Marlborough	1888
Wm. W. Bolles,	"	1888
F. Jones,	"	1889
John Lord, S.,	<i>A. V.</i>	1889
Flora Bolles, <i>A. V.</i> ,	"	1890
J. J. Bell, <i>A. V.</i> ,	"	1890

MERIDEN.

Geo. R. Curtis,	Meriden	1888
Wm. H. Miller,	"	1888
Dr. E. T. Bradstreet,	"	1888
Dr. C. H. S. Davis, C.,	"	1889
Dr. A. W. Tracy,	"	1889
Rev. J. H. Chapin, Ph.D.,	"	1889
Rev. J. T. Pettee, S.,	<i>A. V.</i>	1890
Dr. O. J. D. Hughes,	"	1890
H. W. Hirschfeld,	"	1890

MIDDLEBURY.

A. S. Clark, S.,	<i>A. V.</i> Middlebury	1888
David M. Fenn,	"	1888
G. B. Bristol, <i>A. V.</i> ,	"	1889
H. S. Atwood,	"	1889
L. Abbott, C.,	"	1890
G. Watson Elliott,	"	1890

MIDDLEFIELD.

Moses W. Terrell, C.,	Middlefield	1888
Waldo B. Miller,	"	1888
Milton H. Miller,	"	1889
John O. Couch,	"	1889
J. C. Safford,	"	1890
P. M. Augur,	"	1890
Rev. A. C. Denison, S.,	<i>A. V.</i>	"

MIDDLETOWN.

E. P. Hubbard, C.,	<i>A. V.</i> Middletown	1888
W. U. Pearne, S.,	<i>A. V.</i>	1888
Horace H. Johnson, <i>A. V.</i> ,	"	

Meriden (Westfield box)

Marius W. Wilcox, <i>A. V.</i> ,	East Berlin	1889
Patrick Meegan, <i>A. V.</i> ,	Middletown	1890
Charles W. Church, <i>A. V.</i> ,	"	1890

MIDDLETOWN. (City District.)†

Wm. North Rice, C.,	Middletown	1888
Chas. A. Piddock,	"	1888
Thomas Thompson,	"	1888
W. U. Pearne, S.,	"	1889
Chas. R. Lewis,	"	1889
Chas. W. Church,	"	1889
E. B. Chaffee,	"	1890
Edward Douglas,	"	1890
Stephen B. Davis,	"	1890

MILFORD.*

N. E. Smith, C.,	<i>A. V.</i> Milford	1888
C. A. Tomlinson, S.,	"	1888
Wm. Cecil Durand,	"	1888
John S. Caroli,	"	1888
Isaac T. Rogers, <i>A. V.</i> ,	"	1889
Robert W. Clark,	"	1889
N. Dwight Platt,	"	1889
Henry N. Platt,	"	1889
Geo. M. Gunn,	"	1890
Wm. G. Mitchell,	"	1890
Jas. T. Higby,	"	1890
Geo. F. Platt,	"	1890

MONROE.

John G. Stevens, <i>A. V.</i> ,	Monroe	1890
Edward G. Beardsley, S.	Stepney Depot	1890
David Osborne, C.,	Stepney	1890

MONTVILLE.

Chas. E. Wheeler,	Oakdale	1888
Joseph S. Latimer,	Montville.	1888
Geo. Woodworth,	Norwich.	1888
J. R. Gay, 2d, S.,	<i>A. V.</i> Massapeag	1889
Wm. M. Burchard, C.,	Uncasville	1889
M. V. B. Brainard, <i>A. V.</i> ,	Montville	1889
Wm. A. Cogshall,	Uncasville	1890
D. Chester Comstock,	Montville	1890
Moses Chapman,	Oakdale	1890

MORRIS.

Homer Stoddard, C.,	<i>A. V.</i> Bantam	1888
S. E. Stockman, S.,	<i>A. V.</i> East Morris	1888
Clark S. Loveland,	Morris	1889
Robert E. Hall,	Bantam	1889
Robert W. Skilton,	Morris	1890
Dwight Griswold,	West Morris	1890

NAUGATUCK.

Rev. E. C. Gardner, S.,	<i>A. V.</i> Naugatuck	1888
Thomas Davey, <i>A. V.</i> ,	Union City	1888
Rev. James Fagan, <i>A. V.</i> ,	Naugatuck	1889
Patrick Brennan, <i>A. V.</i> ,	Union City	1889
Dr. F. B. Tuttle, C.,	<i>A. V.</i> Naugatuck	1890
Rev. W. F. Blackman, <i>A. V.</i> ,	"	1890

NEW BRITAIN.*

Wm. F. Walker,	New Britain	1888
Thos. D. Bishop,	"	1888
John Walsh, S.,	<i>A. V.</i>	1888
Thos. Schmitt,	"	1888
R. G. Hibbard,	"	1889
Thos. Begley,	"	1889
Dennis Riordan,	"	1889
V. B. Chamberlain,	"	1889
E. H. Davison,	"	1890
Laurence Crean,	"	1890
Chas. S. Andrews,	"	1890
Oliver Stanley,	"	1890
John N. Bartlett, <i>A. V.</i> ,	"	

NEW CANAAN.

B. D. Purdy, C.,	New Canaan	1888
Rev. F. E. Hopkins, S.,	<i>A. V.</i>	1888
Stephen B. Hoyt,	"	1889
Wm. Wardwell,	"	1889
Chas. E. Hall,	"	1890
Edwin Hoyt,	"	1890

NEW FAIRFIELD.

H. H. Wildman, C.,	Few Fairfield	1888
A. B. Brush,	"	1889
J. J. Treadwell, S.,	<i>A. V.</i>	1889
C. D. H. Kellogg,	Brookfield	1890
Edward Treadwell,	Lanesville	1890
Edward Pierce,	Ball's Pond	1890

* Town School Committee.

† Board of Education.

NEW HARTFORD.

Rev. Luke Fitz Simons, New Hartford	1888
Norman B. Merrill, <i>A. V.</i> Nepaug	1888
Rev. F. A. Spencer, <i>C. S., A. V.</i>	
New Hartford	1889
Rev. F. H. Adams, <i>A. V.</i>	1889
Henry T. Smith	1890
John Richards	1890

NEW HAVEN (City District.)†

Horace H. Strong	542 Quinpiac st.	1888
Thos. O'Brien	27 Ward st.	1888
Philo S. Bennett	46 College st.	1888
H. M. Welch, <i>C.</i>	1452 Chapel st.	1889
Maier Zunder	212 Orange st.	1889
Henry F. Peck	1035 Chapel st.	1889
Wm. H. Carmalt	39 Elm st.	1890
Joseph D. Plunkett	11 University Pl.	1890
Chas. E. Graves	101 Grove st.	1890
Samuel T. Dutton, <i>Super.</i>	New Haven.	

NEW HAVEN. (Westville District.)†

Geo. E. Bradley	Westville	1888
M. E. Terrell	"	1888
J. D. Payne	"	1888
J. N. Austin	"	1889
E. L. Hitchcock	"	1889
H. L. Hotchkiss, <i>S., A. V.</i>	"	1889
L. W. Beecher, <i>C.</i>	"	1890
Burton Dickerman	"	1890
A. N. Allen	"	1890

NEW HAVEN (South District.)

Mr. L. C. Thompson, <i>C.</i>	Morris Cove	1888
Mrs. L. C. Thompson, <i>A. V.</i>	"	1888
Mr. J. H. Morris, <i>S.</i>	"	1888
Mrs. J. H. Morris, <i>A. V.</i>	"	1888

NEWINGTON.

Jacob Dix	Newington Junction	1888
Elias M. Steele	Newington	1888
Roger Welles	"	1889
Chas. K. Atwood, <i>S.</i>	"	1889
J. G. Stoddard, <i>C.</i>	Newington Junction	1890
John S. Kirkham	Newington	1890
Rev. J. O. Barrows, <i>A. V.</i>	"	

NEW LONDON.*

Horace Coit, <i>C.</i>	New London	1888
Isaac C. Tate	"	1888
E. V. Daboll, <i>S.</i>	"	1888
Benj. Stark	"	1889
Thos. W. Potter	"	1889
Thos. C. Collins	"	1889
H. L. Crandall, <i>A. V.</i>	"	1890
Geo. C. Williams	"	1890
Samuel T. Adams	"	1890
Joseph P. Brown, <i>A. V.</i>	"	

NEW MILFORD.

C. A. Todd, <i>S., A. V.</i>	New Milford	1888
Wm. H. Hartwell	"	1888
Aaron D. Marsh	"	1888
E. F. Morehouse, <i>C.</i>	"	1889
Chas. N. Hall	"	1889
S. Buckingham, <i>A. V.</i>	Northville	1889
Ethiel S. Green	New Milford	1890
A. H. Bowers, <i>A. V.</i>	Gaylordsville	1890
Geo. W. Richmond	New Milford	1890

NEWTOWN.

D. G. Beers, <i>C., A. V.</i>	Newtown	1888
C. H. Northrop, <i>S., A. V.</i>	"	1888
E. L. Johnson	"	1889
J. E. Madigan, <i>A. V.</i>	Sandy Hook	1889
Rev. A. P. Chapman, <i>A. V.</i>	"	1890
M. F. Bradley, <i>A. V.</i>	"	1890

NORFOLK.*

Silas A. Palmer	Norfolk	1888
Michael Murphy	W. Norfolk	1888
John D. Bassett, <i>S.</i>	Norfolk	1888
Frederick E. Porter, <i>C.</i>	"	1889
Horace B. Knapp, <i>A. V.</i>	"	1889
Geo. R. Bigelow, <i>A. V.</i>	"	1889
Edmund Brown	"	1890
Joseph N. Cowles	"	1890
John W. De Rue	"	1890

NORTH BRANFORD.

Rev. H. S. Snyder, <i>S., A. V.</i>	Northford	1888
Edward Smith	"	1888
Rev. F. Countryman, <i>C., A. V.</i>	N. Branford	1889
N. M. Robinson	"	1889
Wm. Maltby	Northford	1890
R. M. Rose	N. Branford	1890

NORTH CANAAN.

M. B. Tobey, <i>C., A. V.</i>	Canaan Valley	1888
A. T. Roraback, <i>S., A. V.</i>	Canaan	1888
C. H. Briggs	Canaan Valley	1889
Chas. Gillette	Canaan	1889
Rev. E. F. Barnett	"	1890
E. S. Roberts	East Canaan	1890

NORTH HAVEN.

Geo. W. Smith	N. Haven	1888
Whitney Eliot, <i>C.</i>	"	1888
Isaac E. Mansfield	"	1888
Andrew F. Austin, <i>S., A. V.</i>	"	1889
Solomon F. Linsley	"	1889
Hubert F. Potter	Montowese	1889
Sheldon B. Thorpe	N. Haven	1890
Robt. B. Goodyear	"	1890
Chas. M. Tuttle	"	1890

NORTH STONINGTON.

Dr. E. H. Knowles, <i>S., A. V.</i>	N. Stonington	1888
Frank R. Brown, <i>C., A. V.</i>	"	1888
John L. York, <i>A. V.</i>	"	1888

NORWALK.

J. J. Millard, <i>S., A. V.</i>	S. Norwalk	1888
E. J. Hill, <i>C.</i>	Norwalk	1888
James Toner	"	1888
Rev. E. Anderson, <i>A. V.</i>	"	1889
J. A. Slater	S. Norwalk	1889
Dr. Chas. G. Bohannon	"	1889
Edwin Adams	"	1890
Rev. T. G. Osborne, <i>A. V.</i>	Norwalk	1890
Frederick R. Mead	"	1890

NORWICH.

Rev. Wm. B. Clark	Norwich Town	1888
Chas. E. Blumley	Norwich	1888
Horace A. Briggs	"	1888
John W. Crary, <i>S., A. V.</i>	"	1889
J. S. Lathrop	"	1889
Patrick McLaughlin	"	1889
Rev. Robt. P. Stanton, <i>C.</i>	"	1890
Palmer Bill	"	1890
Joseph T. Fanning	"	1890

NORWICH (TOWN ST.)†

Wm. B. Clark, <i>C., A. V.</i>	Norwich Town	1888
J. S. Lathrop, <i>S.</i>	Norwich	1888
Wm. B. Lathrop	Norwich Town	1888
Wm. R. Potter	"	1889
A. W. Dickey	Norwich	1889
P. O. Mahoney	Norwich Town	1889
Edward Harland	Norwich	1890
L. A. Hyde	"	1890
H. T. Potter	Norwich Town	1890

* Town School Committee.

† Board of Education.

NORWICH (CENTRAL DISTRICT).†

Luther R. Case.....	Norwich.....	1888
M. M. Whittemore.....	".....	1888
Donald G. Perkins.....	".....	1888
Patrick Cassidy.....	".....	1889
Chas. H. Dillaby.....	".....	1889
Chas. F. Setchell.....	".....	1889
Costello Lippitt, S.....	".....	1890
Rev. Wm. S. Palmer, C.....	".....	1890
Burrill W. Hyde.....	".....	1890
N. L. Bishop, Supt.....	".....	1890

NORWICH (WEST CHELSEA).†

J. T. Crary, 330 W. Main st.....	Norwich.....	1888
S. A. Frink, 271.....	".....	1888
J. H. Cranston, S., A. V., 198.....	".....	1888
W. Thames st.....	".....	1888
R. Bushnell, W. Thames cor.....	".....	1889
Everett.....	".....	1889
N. Small, A. V., 72 Asylum st.....	".....	1889
J. F. Williams, 91 W. Main st.....	".....	1889
R. Brown, C., 43 Thames st.....	".....	1890
D. D. Lyman, 291 W. Main st.....	".....	1890
A. Peckham, 76 W. Thames st.....	".....	1890

OLD LYME.

J. E. Swan, A. V.....	Lyme.....	1888
J. M. Huntley.....	".....	1888
Rev. B. W. Bacon.....	".....	1889
B. F. Swaney, S.....	".....	1889
J. Swaney, C.....	".....	1890
W. L. Anderson.....	".....	1890

OLD SAYBROOK.*

Robt. Chalker.....	Saybrook.....	1888
George W. Denison, A. V.....	".....	1888
Edwin Ayer, C.....	".....	1889
Wm. J. Clark, S., A. V.....	".....	1889
Rev. Bernard Paine, A. V.....	".....	1890
John S. Dickinson.....	".....	1890

ORANGE.

Wm. A. Peck, Jr., A. V.....	W. Haven.....	1888
Isaac P. Treat, C., A. V.....	Orange.....	1888
W. M. Andrew, A. V.....	".....	1889
Rev. S. J. Bryant, A. V.....	W. Haven.....	1889
Rev. N. J. Squires, A. V.....	".....	1890
Dr. John F. Barnett, S., A. V.....	".....	1890

OXFORD.

Clark E. Lum, A. V.....	Oxford.....	1888
Nathan C. Riggs, A. V.....	".....	1888
Rev. J. B. Cleaveland, C., A. V.....	".....	1889
Elijah B. Treat, A. V.....	".....	1889
Dr. L. Barnes, S., A. V.....	".....	1890
Orlando C. Osborn, A. V.....	".....	1890

PLAINFIELD.

R. Ensforth, C., A. V.....	Plainfield.....	1888
J. S. French, A. V.....	Central Village.....	1888
Thos. W. Brown.....	Moosup.....	1888
James M. Wilcox.....	Central Village.....	1889
Geo. Torrey.....	".....	1889
W. Tillinghast, A. V.....	Plainfield.....	1888
Rev. S. H. Fellows, S., A. V.....	Wauregan.....	1890
Wm. J. Nichols.....	Moosup.....	1890
Joseph P. Matthew.....	Wauregan.....	1890

PLAINVILLE.*

A. H. Condell, C.....	Plainville.....	1888
Hiram Carter.....	".....	1888
Rev. A. E. Denison, S., A. V.....	".....	1889
Joseph Flynn.....	".....	1889
James E. Prior, A. V.....	".....	1890
Robt. A. Potter.....	".....	1890

PLYMOUTH.

R. D. H. Allen.....	Pequabuck.....	1888
J. W. Clark.....	Terryville.....	1888
A. W. Welton.....	Plymouth.....	1888
A. P. Fenn.....	".....	1889
W. G. Barton.....	".....	1889
W. W. Clemence, C.....	Terryville.....	1889
Geo. M. Allen, A. V.....	".....	1890
L. D. Baldwin, S., A. V.....	Plymouth.....	1890
E. M. Talmadge.....	".....	1890

POMFRET.

A. S. Bruce.....	Pomfret Landing.....	1888
E. P. Hayward.....	Pomfret Centre.....	1888
Frederick Hyde, C.....	".....	1888
I. P. Briggs, S., A. V.....	Pomfret.....	1889
E. P. Mathewson.....	".....	1889
Horace Sabin.....	".....	1889
J. W. Clapp.....	Elliott.....	1890
C. P. Grosvenor.....	Abington.....	1890
Geo. Allen.....	".....	1890

PORTLAND.

J. H. Pelton.....	Cobalt.....	1888
Rev. J. S. Bayne.....	".....	1888
W. S. Strickland, S.....	Gildersleeve.....	1888
A. H. Hale, A. V.....	Portland.....	1889
G. B. Cleaveland, C., A. V.....	".....	1889
W. D. Penfield.....	Cobalt.....	1890
Dr. C. A. Sears.....	".....	1890
Ferdinand Gildersleeve.....	Gildersleeve.....	1890

PRESTON.

Mason S. Hewitt, S., A. V.....	Preston City.....	1890
Aaron Lucas.....	Poquetannock.....	1890
Harvey C. Palmer, C.....	Greenville.....	1890

PROSPECT.*

Rev. W. H. Phipps, S., A. V.....	Prospect.....	1888
Wm. E. Clark, C.....	".....	1888
E. B. Jeralds.....	W. Cheshire.....	1889
F. A. Willetts.....	Prospect.....	1889
Geo. R. Morse.....	".....	1890
H. N. Clark.....	".....	1890

PUTNAM.

Eric H. Johnson, A. V.....	Putnam.....	1888
L. H. Fuller.....	".....	1888
Dr. J. B. Kent, C.....	".....	1889
Dr. O. Larue.....	".....	1889
Darius S. Skinner.....	".....	1890
Rev. F. H. Church, S., A. V.....	".....	1890

REDDING.

W. E. Duncomb, C., A. V.....	Redding.....	1888
A. B. Hill.....	".....	1888
Rev. Wm. J. Jennings, S., A. V.....	".....	1888

RIDGEFIELD.

Rev. L. W. Abbott, S., A. V.....	Ridgefield.....	1888
Joel W. Rockwell.....	".....	1888
Hiram V. Scott, C.....	".....	1888
C. B. Northrop.....	".....	1889
F. H. Stalford.....	".....	1889
Howard E. Mead.....	".....	1889
Rev. W. W. Leete.....	".....	1890
John D. Nash.....	".....	1890
Jas. L. Hunt.....	".....	1890

* Town School Committee.

† Board of Education.

ROCKY HILL.

Jas. H. Warner	Rocky Hill	1888
W. G. Robbins, <i>S., A. V.</i>	"	1888
F. L. Burr	"	1889
Samuel Ashwell	"	1889
A. D. Griswold, <i>C., A. V.</i>	"	1890
Royal A. Porter	"	1890

ROXBURY.

C. E. Prindle	Roxbury	1888
A. L. Pierce	"	1888
G. W. P. Leavenworth	Hotchkissville	1889
R. R. Davidson, <i>S., A. V.</i>	Roxbury	1889
F. H. Leavenworth, <i>A. V.</i>	Hotchkissville	1890
E. W. Preston	Roxbury	1890

SALEM.

David H. Seaman	Salem	1888
Gurdon F. Allyn	"	1888
F. E. Chadwick, <i>S., A. V.</i>	"	1889
Henry A. Rogers	North Lyme	1889
Robert A. Bailey, <i>C., A. V.</i>	Salem	1890
Austin O. Gallup	"	1890

SALISBURY.

L. F. Reid	Lakeville	1888
Rev. J. H. George, <i>A. V.</i>	Salisbury	1888
Rev. J. C. Goddard, <i>S., A. V.</i>	"	1889
D. Allyn, <i>C., A. V.</i>	Ashley Falls, Mass.	1890
Rev. R. F. Putnam	Lime Rock	1890
C. H. Bissell	Lakeville	1890

SAYBROOK.*

Edwin Bidwell	Deep River	1888
O. Henry Glover	"	1888
Henry L. Denison	Winthrop	1888
Chas. R. Marvin	Deep River	1888
Dwight S. Southworth	"	1889
Fred. I. Hammond	"	1889
Fred. L'Hommedieu, <i>S.</i>	"	1889
C. M. Pratt	"	1889
Rev. Wm. H. Knouse, <i>A. V.</i>	"	1890
Geo. F. Spencer, <i>C.</i>	"	1890
Emery C. Parker	"	1890

SCOTLAND.

Wm. M. Burnham	Scotland	1888
John L. Bass	"	1888
Gerald Waldo, <i>C.</i>	"	1889
Abner Robinson	"	1889
Rev. G. A. Bryan, <i>S., A. V.</i>	"	1890
Mrs. I. B. Gallup	"	1890

SEYMOUR.*

L. A. Camp, <i>A. V.</i>	Seymour	1888
H. L. Halligan	"	1888
Peter Ward	"	1888
David Tucker	"	1889
Dr. R. E. Warner, <i>A. V.</i>	"	1889
T. B. Beach, <i>S.</i>	"	1889
T. L. James, <i>C.</i>	"	1890
S. H. Canfield	"	1890
H. N. Eggleston	"	1890

SHARON.

Robt. E. Goodwin	Sharon	1888
Geo. A. Kelsey	Sharon Valley	1888
Chas. E. Benton, <i>C.</i>	Sharon	1889
C. C. Gordon	Sharon Valley	1889
H. C. Rowley	Sharon	1890
Dr. C. W. Bassett, <i>S., A. V.</i>	"	1890

SHERMAN.

Isaac B. Hall	Sherman	1888
Edward P. Herrick	"	1888
Chas. I. Leach	"	1888
Dr. John N. Woodruff, <i>S., A. V.</i>	"	1889
Samuel E. Vincent, <i>A. V.</i>	"	1889
Frank Hungerford, <i>C., A. V.</i>	"	1889
Geo. W. Green	"	1890
L. B. Hungerford	"	1890
Mills Hungerford	"	1890

SIMSBURY.

H. W. Ensign, <i>A. V.</i>	Weatogue	1888
D. B. McLean, <i>S., A. V.</i>	Simsbury	1888
Dr. Wooster	"	1889
J. B. McLean	"	1889
G. B. Holcomb	"	1890
Rev. G. T. Heuleit, <i>C., A. V.</i>	Tariffville	1890

SOMERS.

Rev. C. H. Gleason, <i>C.</i>	Somers	1888
Dr. Wm. B. Woods	"	1888
C. M. Havens	"	1889
Albert Kibbe	"	1889
Myron F. Gowdy, <i>S., A. V.</i>	Somersville	1890
Loren W. Percival	Somers	1890

SOUTHBURY.

Herman Perry	Southbury	1888
C. S. Brown, <i>S., A. V.</i>	"	1888
David F. Pierce, <i>C., A. V.</i>	S. Britain	1889
Birdsey Gilbert	"	1889
Dr. M. L. Cooley	Southbury	1890
Henry S. Wheeler	Southford	1890

SOUTHINGTON.

Rev. R. F. Moore	Southington	1888
Andrew F. Barnes, <i>A. V.</i>	Marion	1888
Marcus H. Holcomb	Southington	1889
Dr. James H. Osborne, <i>S.</i>	"	1889
Solomon Finch	"	1890
Stephen Walkley, <i>C.</i>	Plantsville	1890

SOUTH WINDSOR.

Edwin D. Farnham, <i>C.</i>	S. Windsor	1888
H. B. Noble	E. Windsor Hill	1888
Sheldon J. Grant	Wapping	1889
Rev. Daniel Phillips, <i>S., A. V.</i>	"	1889
C. O. Kibbe	"	1890
Dr. F. G. Burnett, <i>A. V.</i>	S. Windsor	1890

SPRAGUE.

Peter S. Cote, <i>S.</i>	Baltic	1888
Nathan Geer, <i>C., A. V.</i>	"	1888
William Weeks	Versailles	1889
James E. Vickeridge	Baltic	1889
Dr. T. S. Stanton, <i>A. V.</i>	"	1890
Wm. A. Greene	"	1890

STAFFORD.

Rev. G. V. Maxham, <i>S. and Supt.</i>	Monson, Ms.	1888
Rev. J. P. Hawley, <i>A. V.</i>	Stafford Springs	1888
Rev. F. L. Batchelder, <i>C., A. V.</i>	Stafford	1889
J. O. Booth, <i>A. V.</i>	Staffordville	1889
Z. W. Ellis, <i>A. V.</i>	W. Stafford	1890
J. R. Washburn, <i>A. V.</i>	"	1890

* Town School Committee.

STAMFORD.*

H. D. Rolph	Stamford	1888
C. Y. Baldwin	"	1888
Dr. Geo. W. Birch, <i>A. V.</i>	"	1888
Radcliff Hudson, S.	"	1889
Dr. Francis J. Rogers, <i>A. V.</i>	"	1889
Wm. W. Scofield	"	1889
Robt. Swartwout	"	1890
E. L. Brady, C.	"	1890
Samuel Roberts	"	1890

STERLING.

A. A. Stanton	Ekonk	1888
Henry D. Dixon, C.	Sterling	1888
J. A. B. Douglass, S., <i>A. V.</i>	"	1889
Alfred Gallup	"	1889
Nehemiah J. Wood	"	1890
Amory J. Kebler	"	1890

STONINGTON.

Silas B. Wheeler	Mystic	1888
Geo. F. Coats, <i>A. V.</i>	N. Stonington	1888
J. S. Anderson, <i>A. V.</i>	Stonington	1889
C. H. Babcock, S., <i>A. V.</i>	Westerly, R. I.	1889
Ambrose Briscoe	"	1890
Simeon Gallup, C., <i>A. V.</i>	Mystic	1890

STRATFORD.

S. O. Canfield	W. Stratford	1888
James Bounds	"	1888
Chas. C. Wells, C., <i>A. V.</i>	Stratford	1889
Morton Beardsley, <i>A. V.</i>	"	1889
A. Wilcoxson, S., <i>A. V.</i>	"	1890
Robt. H. Russell	"	1890

SUFFIELD.

Rev. H. Kelsey, C., <i>A. V.</i>	Suffield	1888
Chas. Sheldon, <i>A. V.</i>	W. Suffield	1888
Dr. Wm. H. Mather, S., <i>A. V.</i>	Suffield	1889
Fred. Hatheway, <i>A. V.</i>	Windsor Locks	1889
John Cannon, <i>A. V.</i>	W. Suffield	1890
Leverett Austin, <i>A. V.</i>	Suffield	1890

THOMASTON.*

Rev. M. J. McGivney, <i>A. V.</i>	Thomaston	1888
Dr. H. R. Warner	"	1888
Geo. H. Stoughton	"	1888
Wm. Trihey	"	1889
G. A. Stoughton	"	1889
Dr. R. S. Goodwin, <i>A. V.</i>	"	1889
Dr. Geo. D. Ferguson, S., <i>A. V.</i>	"	1890
A. P. Bradstreet, C.	"	1890
Rev. Fred. Saunders	"	1890

THOMPSON.

Stephen Ballard, C., <i>A. V.</i>	Thompson	1889
E. H. Cortis, S., <i>A. V.</i>	N. Grosvenordale	1889
Edw. F. Thompson, <i>A. V.</i>	"	1889

TOLLAND.

A. L. Benton, C.	Tolland	1888
S. H. Brown, S., <i>A. V.</i>	"	1888
E. O. Dimock	"	1889
W. D. Holman	W. Willington	1889
C. Hungerford	Tolland	1890
F. P. Mack	"	1890

TORRINGTON.*

W. A. Cowles, S.	Torrington	1888
Burr Lyon	"	1888
E. B. Birge	Torrington	1888
James Alldis	Torrington	1889
A. F. Miner	"	1889
Wm. M. P. Shelton, <i>A. V.</i>	Litchfield	1889
E. J. Steele	Torrington	1890
Rev. Patrick Duggan	"	1890
Rev. H. H. Sherman, C., <i>A. V.</i>	"	1890

TRUMBULL.

E. P. Burton, C.	Trumbull	1888
C. B. Sherwood	"	1888
H. L. Fairchild	"	1889
Wm. B. Mallette	Long Hill	1889
S. H. Booth	Trumbull	1890
Beach Hill, S., <i>A. V.</i>	Long Hill	1890

UNION.

M. P. J. Walker	Stafford Springs	1888
E. C. Booth	"	1888
Rev. I. P. Smith, C.	"	1889
Geo. Towne, S., <i>A. V.</i>	"	1889
Newton Wallace	Mashapaug	1890
S. W. Newell	Union	1890

VERNON.

Wilbur B. Foster, S., <i>A. V.</i>	Rockville	1888
E. K. Leonard	"	1888
Dr. A. R. Goodrich, C.	Vernon Depot	1889
Chas. Phelps, <i>A. V.</i>	Rockville	1889
John N. Stickney	"	1890
Wm. V. McNerney	"	1890

VOLUNTOWN.

E. B. Gallup	Ekonk	1888
F. S. Bitgood	Voluntown	1888
John E. Green	"	1889
Rev. John Elderkin, S., <i>A. V.</i>	Ekonk	1889
A. E. Bitgood, C.	Voluntown	1890
J. N. Lewis	"	1890

WALLINGFORD.

Rev. J. E. Wildman	Wallingford	1888
E. M. Judd	"	1888
Chas. D. Yale, C.	"	1889
Rev. A. E. Reynolds	"	1889
Henry L. Hall, S., <i>A. V.</i>	"	1890
A. Andrews	"	1890

WARREN.

Samuel E. Tanner	Warren	1888
Rev. W. T. Colton	"	1888
Peter M. Smith	"	1889
Noble B. Strong, C., S., <i>A. V.</i>	"	1890
Chas. W. Everett	"	1890

WASHINGTON.

O. Hickox	Washington	1888
Ralph Buckingham	Marbledale	1888
Chas. Beach	"	1889
Rev. Henry Upson, S., <i>A. V.</i>	New Preston	1890
Geo. Wheaton	"	1890

* Town School Committee.

WATERBURY.

Rev. F. T. Russell	Waterbury	1888
Dr. E. L. Griggs	"	1888
Maier Kaiser	"	1888
H. F. Bassett, S.	"	1889
Geo. H. Cowell, A. V.	"	1889
Dr. E. P. Gregory, A. V.	"	1889
Rev. J. W. Fones	"	1890
E. L. Frisbie	"	1890
T. I. Driggs, C.	"	1890

WATERBURY (CENTRE DISTRICT).†

J. W. Webster, C.	Waterbury	1890
H. F. Bassett	"	1890
Thomas Donahue	"	1890
John Henderson, Jr.	"	1890
Rev. R. W. Micou	"	1890
Rev. J. A. Mulcahey	"	1890
Joseph B. Spencer	"	1890
M. S. Crosby, Supt.	"	-

WATERFORD.

Geo. W. Chamberlain, A. V.	New London	1888
R. A. Chapman, A. V.	Waterford	1888
E. J. Hempsted, C., A. V.	New London	1889
A. H. Lanphere, A. V.	Waterford	1889
H. H. Gorton, A. V.	New London	1890
J. W. Manwaring, S., A. V.	Waterford	1890

WATERTOWN.

T. P. Baldwin, S., A. V.	Watertown	1888
Rev. J. W. Lancaster, A. V.	"	1888
A. A. Stone	Oakville	1889
Henry E. Scott	Watertown	1889
B. Hemingway	"	1890
Henry F. Davis, C.	"	1890
Rev. G. A. Pelton, A. V.	"	-

WESTBROOK.

James H. Crofut	Westbrook	1888
Geo. C. Moore, C.	"	1888
Richard H. Stannard	"	1889
Edwin C. Stevens, A. V.	"	1889
Jas. H. Walker	"	1890
J. H. DeWolfe, S., A. V.	"	1890

WEST HARTFORD.*

Henry Talcott, C.	Elmwood	1888
E. A. Whiting	W. Hartford	1888
Geo. Barber	Bloomfield	1888
W. E. Goodwin	Elmwood	1889
Geo. S. Merritt	Hartford	1889
W. H. Hall, S.	W. Hartford	1889
A. C. Sternberg, A. V.	"	1890
Dr. F. S. Smith	"	1890
Franklin Sisson	"	1890

WESTON.

Ebenezer Fitch	Westport	1888
David S. Parsons	Lyons Plain	1888
Iverson C. Fanton, S., A. V.	Aspetuck	1889
Rufus K. Fitch, C.	Weston	1889
Andrew S. Jarvis	"	1890
Adam C. Lyon	Aspetuck	1890

WESTPORT.

Wm. J. Jennings, A. V.	Green's Farms	1888
C. H. Kemper, Jr.	Westport	1888
F. Powers, M.D.	"	1889
Silas B. Sherwood	"	1889
Dr. L. T. Day, S., A. V.	"	1890
Rev. J. E. Tuttle	"	1890

WETHERSFIELD.

Edward D. Robbins	Hartford	1888
L. W. Adams	Wethersfield	1888
Dr. R. Fox	"	1889
M. S. Griswold, S., A. V.	"	1889
Rev. L. W. Hicks	"	1890
Stephen Morgan	"	1890

WILLINGTON.

Chas. T. Preston, C., A. V.	Willington	1888
L. W. Holt, S., A. V.	E. Willington	1888
J. Bugbee, Jr., A. V.	Moose Meadow	1888

WILTON.

D. S. Hurlbutt, A. V.	Cannon's Station	1888
Wm. Sturges, S.	Wilton	1888
L. Jelliffe, C.	"	1889
Wilbur Sturges	Cannon's Station	1889
B. F. Brown	Wilton	1890
Jas. T. Hubbell	"	1890

WINCHESTER.

Rev. A. Goodenough, C. A. V.	Winchester	1888
Chas. A. Bristol, A. V.	"	1888
Henry Barreuther, A. V.	Winsted	1889
Rev. H. H. Kelsey, S., A. V.	W. Winsted	1889
Rev. H. N. Kinney, A. V.	Winsted	1890
Rev. Fra Leo DaSaracena, A. V.	Winsted	1890

WINDHAM.

Rev. Samuel R. Free, A. V.	Willimantic	1888
Geo. A. Conant, S., A. V.	"	1888
John L. Hunter	"	1888
John D. Wheeler, C., A. V.	"	1889
Dr. Fred. Rogers	"	1889
John L. Hunter	"	1889
Chas. A. Capen	"	1890
Chas. W. Holden, A. V.	"	1890
A. B. Holmes	"	1890

WINDSOR.

Dr. J. N. Dixon, A. V.	Windsor	1888
Rev. F. W. Harriman, A. V.	"	1888
E. S. Clapp, C.	"	1889
J. E. Larkin	"	1889
Rev. G. C. Wilson, S., A. V.	"	1890
W. H. Harvey	"	1890

WINDSOR LOCKS.*

Hon. E. B. Bailey, A. V.	Windsor Locks	1888
John P. Healey, S.	"	1888
E. D. Coogan, C.	"	1889
Allen Pease	"	1889
Geo. P. Clark	"	1890
Rev. J. O. R. Sheriden	"	1890

WOLCOTT.*

Rufus Norton	Wolcott	1888
H. B. Carter, C.	"	1888
J. R. S. Todd, S., A. V.	Waterbury	1889
E. M. Upson	Wolcott	1889
A. J. Slater	"	1890
B. L. Bronson	"	1890

WOODEDRIDGE.

John W. Barker	Westville	1888
H. E. Baldwin	"	1888
L. C. Beecher, S., A. V.	"	1889
E. E. Thomas	"	1889
Wm. H. Warner	"	1890
Chas. P. Augur	"	1890

* Town School Committee.

† Board of Education.

WOODBURY.

Dr. H. W. Shove, C.	Woodbury	1888
M. F. Skelly	"	1888
Chas. H. Percy	Hotchkissville	1888
Geo. M. Allen	"	1889
David L. Somers	Woodbury	1889
W. J. Clark, S., A. V.	"	1889
Rev. J. L. R. Wyckoff	"	1890
F. F. Hitchcock	"	1890
Truman E. Wheeler	"	1890

WOODSTOCK.

W. S. Kenyon	Woodstock Valley	1888
P. S. Butler, C., A. V.	W. Woodstock	1888
V. T. Wetherell	E. Woodstock	1888
L. J. Leavitt	N. Woodstock	1889
Geo. W. Child, A. V.	E. Woodstock	1889
C. H. Child	Woodstock	1889
Lewis J. Wells, S., A. V.	S. Woodstock	1890
W. W. Webber	Woodstock	1890
F. E. Barrett	N. Woodstock	1890

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L A W S
OF THE
STATE OF CONNECTICUT
RELATING TO
EDUCATION.



PUBLISHED BY AUTHORITY.

NEW HAVEN, CONN.:
PRINTED BY TUTTLE, MOREHOUSE & TAYLOR.
1888.

GENERAL ASSEMBLY, }
JANUARY SESSION, 1887. }

Resolved by this Assembly:

That the secretary of the State board of education be authorized to compile and cause to be printed for distribution five thousand copies of the laws relating to education.

This compilation is prepared in accordance with the resolution printed on the opposite page.

At the margin of each section will be found the number of the same section in the General Statutes, Revision of 1888.

The table on pages 5 to 10, contains :

1. The numbers of sections in the General Statutes, Revision of 1888.
2. The numbers of the same sections in this compilation.
3. The numbers of the same sections if found in Revision of 1875.
4. The Chapter of Public Acts where same section, if enacted since 1875, may be found.

CHARLES D. HINE,
Secretary.

HARTFORD, January 3d, 1887.

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2169	100		1884, xxxiv.
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2174	105	136, Sec. 15	
2175	106	136, Sec. 16	
2176	107		1883, xcv.
2177	108		1879, lviii.
2178	109		1883, xl.
2179	110	137, Sec. 17	
2180	111	137, Sec. 18	
2181	112	137, Sec. 19	
2182	113		1878, xxxiii.
2183	114	137, Sec. 20	
2184	115	137, Sec. 21	
2185	116	137, Sec. 22	
2186	117	137, Sec. 23	
2187	118	137, Sec. 24	
2188	119	138, Sec. 25	
2189	120	138, Sec. 26	
2190	121	138, Sec. 27	
2191	122	138, Sec. 28	
2192	123	138, Sec. 29	
2193	124	139, Sec. 1	1878, cxxiv.

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2194	125		1875, xxxii.
2195	128	139, Sec. 2	
2196	126	139, Sec. 3	
2197	129	139, Sec. 4	
2198	130	139, Sec. 5	
2199	131		1887, cxix, 1.
2200	132		1887, cxix, 2.
2201	133	140, Sec. 6	
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2205	136		1879, liv, 1.
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2207	138		1879, liv, 3.
2208	139		1877, cxliii, 1.
2209	140		1877, cxliii, 2.
2210	141		1877, cxliii, 3.
2211	142		1877, li.
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2215	42	141, Sec. 1	
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2217	69	142, Sec. 3	
2218	148		1882, lxxxix.
2219	149	142, Sec. 2	
2220	11		1883, lxxiii, 10.
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2223	151		1875, lix.
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2225	153	143, Sec. 2	
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2227	155	144, Sec. 3	1877, lxvii.
2228	156	144, Sec. 4	
2229	145		1881, xiv.
2230	157	145, Sec. 6	
2231	158	145, Sec. 7	
2232	159	145, Sec. 8	
2233	160	145, Sec. 9	
2234	161		1886, cvi; 1887, cxxv.
2235	3		1886, cvi, 3.
2236	162	145, Sec. 10	1881, xxvii.
2237	163	145, Sec. 11	1885, lxvii; 1886, v.
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2244	170	147, Sec. 17	
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2247	13		1883, lxxiii, 4; 1884, xii.
2248	14		1883, lxxiii, 5; 1885, xxii.
2249	15		1883, lxxiii, 6.
2250	16		1883, lxxiii, 7.
2251	17		1883, lxxiii, 8.
2252	175	526, Sec. 4	
2253	176	149, Sec. 1	1878, cxvii; 1883, xxxv; 1887, lxxx.
2254	177	149, Sec. 2	
2255	178	149, Sec. 3	
2256	179	149, Sec. 4	
2257	180	149, Sec. 5	
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2259	182	150, Sec. 7	
2260	183	150, Sec. 8	
2563	237		1886, xxiii.
2623	252	261, Sec. 25	1878, lxix.
3628	206		1881, cxix.
3629	207		1879, cxxv, 2.
3631	208		1879, cxxv, 5.
3632	209		1879, cxxv, 6.
3633	210		1879, cxxv, 7.
3634	211		1886, cxxvii, 1.
3635	212		1886, cxxvii, 2.
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3638	18		
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3641	214	94, Sec. 1	1875, xcvi; 1878, cxxii.
3642	215	94, Sec. 2	1876, lii.
3643	216		1883, xi.
3644	217	94, Sec. 4	
3645	218	94, Sec. 5	
3646	219		1885, v.
3655	226		1883, cxxvi, 1.
3656	227		1883, cxxvi, 2.
3657	228		1885, cxvi, 1.
3658	229		

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3659	230		1886, xcii, 1.
3660	231		1886, xcii, 2.
3661	232		1886, xcii, 3.
3663	173		1886, xciii, 1.
3664	174		1886, xciii, 2.
3665	234		1885, cxvi, 3.
3676	220	98, Sec. 1	
3677	221	98, Sec. 2	
3678	222	98, Sec. 3	
3679	223	98, Sec. 4	
3680	224	98, Sec. 5	
3681	225		1887, lxxi.
3734	81		1880, x.
3867	198	161, Sec. 46	
3869	199		1881, ci.
3877	200	162, Sec. 5	
3878	201		1879, xlvi.
3886	202	163, Sec. 12	1880, xl ; 1884, lxxxv.
3888	203		1887, cx.
3901	204		1881, ci.
3907	205		1887, cx.
3908	191		1883, lxxxviii.
3909	192		1877, xxxiv.
3910	193	165, Sec. 2	
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3912	195	166, Sec. 4	
3913	196	166, Sec. 5	
3914	197	166, Sec. 6	

CONSTITUTION OF CONNECTICUT.

[ARTICLE EIGHTH.]

Of Education.

Section 1. The charter of Yale College, as modified by agreement with the corporation thereof, in pursuance of an act of the General Assembly, passed in May, 1792, is hereby confirmed. Charter of Yale College.

Sec. 2. The fund, called the SCHOOL FUND, shall remain a perpetual fund, the interest of which shall be inviolably appropriated to the support and encouragement of the public or common schools throughout the State, and for the equal benefit of all the people thereof. The value and amount of said fund shall, as soon as practicable, be ascertained in such manner as the General Assembly may prescribe, published, and recorded in the comptroller's office; and no law shall ever be made, authorizing said fund to be diverted to any other use than the encouragement and support of public, or common schools, among the several school societies, as justice and equity shall require. School fund.

L A W S
OF THE
STATE OF CONNECTICUT
RELATING TO
EDUCATION.

CHAPTER I.

General Provisions.

SECTION.

1. Women may be school visitors.
2. Preservation of school documents and books.

SECTION.

3. School year.

G. S. sec. 2707.
Women may be
school officers.

1887, ch. cxxxvi.

G. S. sec. 2749.
Preservation of
books and
records.

G. S. sec. 2235.
School year.

Section 1. No person shall be deemed ineligible to serve as a member of any board of education, board of school visitors, school committee, or district committee, or disqualified from holding such office by reason of sex.

Sec. 2. All school officers shall preserve all books and documents of permanent value, pertaining to schools, which come into their hands by virtue of their offices, and transmit them to their successors.

Sec. 3. The school year shall commence the first day of September, and end on the thirty-first day of August.¹

¹ Secs. 40, 161, 162, 163, 170.

CHAPTER II.

State Board of Education.

[GEN. STAT. TITLE XXXV, CHAPTER CXXX, PAGE 456.]

SECTION.

4. Appointment of members.
5. Duties, powers, teachers' meetings, expenses, annual report, etc.
6. Appointment and duties of secretary; clerk.
7. Appointment and report of agent.
8. Enforcement of Act relating to employment of children under 13; compensation of agents.
9. Text-book on physiology and hygiene; how supplied.
10. Teachers' certificates.
11. Account of appropriation for libraries and apparatus.

SECTION.

12. Expenses and account; orders how signed.
13. Normal School, object and annual appropriation.
14. Number and recommendation of students.
15. Selection of students.
16. Expenditure of funds; regulation of school; account; report.
17. Model primary school.
18. Connecticut Industrial School for Girls; a school district.
19. School committee; acting visitor.
20. Public school money.

Section 4. There shall be a State board of education, composed of the Governor, Lieutenant-Governor, and four persons appointed by the General Assembly, two at each regular session, and selected one from each congressional district, who shall hold office for four years,¹ except when appointed to fill a vacancy occasioned otherwise than by the expiration of the term of office, in which case the person so appointed shall hold office only for the unexpired term of the person in whose place he may be appointed; all vacancies shall be filled by the General Assembly, but until so filled they may be filled by the Governor and Lieutenant-Governor.

G. S. sec. 2095.

Appointment of members.

Term of office.

Vacancies.

Sec. 5. The board shall have general supervision and control of the educational interests of the State;

G. S. sec. 2096. Powers and duties.

May direct what books shall be used in all its schools, but shall not direct any book to be changed oftener than once in five years;

Shall prescribe the form of registers² to be kept in

¹ The terms of office of members other than the governor and lieutenant-governor begin on the first day of July following their appointment.—*G. S. sec. 427.*

The members are paid their necessary expenses.—*G. S. sec. 3706.*

² Registers of three sizes are supplied to public and private schools, and a special form for evening schools.

For registers of private schools, see *sec. 23.*

For duties of teachers in connection with registers, see *sec. 151.*

said schools, and the form of blanks and inquiries for the returns¹ to be made by the various school boards and committees ;

Shall ascertain and keep informed as to the condition and progress of the public schools in the State ;

And shall seek to improve the methods and promote the efficiency of teaching therein, by holding, at various convenient places in the State, meetings of teachers and school officers, for the purpose of instructing in the best modes of administering, governing, and teaching public schools, and by such other means as they shall deem appropriate ; but the expenses incurred in such meetings shall not exceed the sum of three thousand dollars in any year.²

Said board shall, on or before the Monday after the first Wednesday in January in each year,³ submit to the Governor a report containing a printed abstract of said returns, a detailed statement of the doings of the board, and an account of the condition of the public schools, of the amount and quality of instruction therein, and such other information as will apprise the General Assembly

Educational
meetings.

Expenses.

Annual report.
1887, ch. v. §28.

¹ Returns to be made to State board of education, are :

1. Town reports of school visitors, sec. 77.
- (a) including names of teachers and committees, sec. 79.
2. Town reports by town committees, sec. 129.
3. District reports by board of education, sec. 60.
4. Reports of evening schools, sec. 72.
5. Reports of private schools, sec. 23.

Blanks are supplied for all above returns and for reports of district committees to school visitors, sec. 147.

² Other duties and powers of the board are :

1. To superintend Normal School, secs. 13-17.
2. To act as committee of the Connecticut Industrial School at Middletown, secs. 19, 20.
3. To enforce law relating to employment of children, secs. 8, 24, 25.
- (a) Shall appoint agents, sec. 8.
4. To enforce laws relating to attendance, secs. 7, 8.
- (a) May appoint agents, secs. 7, 8.
5. To keep account of library money, sec. 11.

³ " All other reports now required to be made annually to the General Assembly shall hereafter be made to the governor at the same period of the year as now required to be made to the General Assembly," G. S. sec. 376.

of the true condition, progress, and needs of public education; and such annual reports shall be submitted to said Assembly at its regular sessions.¹

Sec. 6. The board shall appoint a secretary, who shall, under its direction and control, perform such duties, in the general supervision and control of the educational interests of the State, in visiting the public schools, and in the execution of the duties and powers of the board, as the board may prescribe.² The board shall have power to appoint a clerk, who shall assist the secretary, and perform such clerical and other duties as the secretary may prescribe.

G. S. sec. 2007.
Secretary of the
board, duties.

Clerk.

Duties.

Sec. 7. The board shall have power to appoint an agent³ to secure the due observance of the laws relating to the instruction of children,⁴ and such agent shall make written report of his work to the secretary semi-annually.

G. S. sec. 2008.
Agent.

Report.

Sec. 8. It shall be the duty of the State board of education and the school visitors, boards of education, and town committees of towns, to enforce sections 24 and 25 of chapter iii; and for that purpose the State board of education may appoint agents, under its supervision and control, for terms of not more than one year, who shall be paid not to exceed five dollars per day for time actually

G. S. sec. 1755.
Enforcement of
law relating to
employment of
children.

Compensation
of agents.

¹ The number of reports annually printed and distributed is 3000. *G. S. sec. 331.*

² The secretary is, *ex officio*, a member of the visiting board of the Sheffield Scientific School, sec. 180.

Other duties and powers are :

1. To make return to Comptroller of delinquent towns and forfeitures, sec. 78.

2. To draw orders for library money, sec. 148.

3. To furnish blanks and registers to private schools, sec. 23.

4. To make estimates of appropriations, *G. S. sec. 380.*

5. To sign orders for State money drawn from treasury, sec. 12.

6. To inspect certificates of attendance, sec. 27, and registers of private schools, sec. 23.

7. To remit forfeitures, sec. 171.

For salary and expenses of the secretary and clerk, see *G. S. sec. 3706.*

³ May inspect certificates of attendance, Sec. 27, and registers of private schools, sec. 23.

⁴ Chapter iii, page 20.

employed and necessary expenses, and whose accounts shall be approved by said board and audited by the Comptroller.

Duties. The agents so appointed may be directed by said board to enforce the provisions of the law requiring the attendance¹ of children in school and to perform any duties necessary or proper for the due execution of the duties and powers of the board.

G. S. sec. 2700.
Text-book on
physiology and
hygiene, how
supplied.

Sec. 9. The board of education shall prescribe the text-books to be used in teaching physiology and hygiene as required by law,² and shall prepare or cause to be prepared a text-book, and, if desirable, charts for such teaching, which text-book and charts shall be furnished to towns and school districts, for the use of scholars in the public schools needing the same, free of expense. The secretary shall take out a copyright for the State upon any text-book or chart prepared under the authority of this section.

Copyright.

G. S. sec. 2222.
Teachers'
certificates may
be granted upon
examination.

Sec. 10. The State board of education may, upon public examination in such branches, and upon such terms as it may prescribe, grant a certificate of qualifications to teach in any public school in the State, and may revoke the same. Such certificate may be accepted by any board of school visitors, or board of education, in lieu of any other examination.³

G. S. sec. 2220.
Account of ap-
propriation for
school libraries
and apparatus.

Sec. 11. The State board of education shall keep an account of the money drawn and paid out⁴ for school libraries and philosophical apparatus pursuant to chapter x, and the Comptroller shall annually audit such account.

G. S. sec. 2099.
Expenses and
account; orders
how signed.

Sec. 12. The board is authorized to expend such sum as may be necessary to perform the duties and execute the powers conferred upon it, and shall semi-annually file with the Comptroller a certified account of all State moneys received and expended during the preceding half-year,⁵ which account shall be audited by the Comptroller.⁶

¹ Chapter iii, page 20.

² Sec. 41.

³ Secs. 57, 64, 69, 129, 150.

⁴ The annual appropriation is \$5000.

⁵ For fiscal year see G. S. sec. 375.

⁶ Disposition of balances. G. S. sec. 408.

All orders for drawing any State money shall be signed by the secretary and countersigned by a committee of the board duly authorized thereto.

NORMAL SCHOOL.

Sec. 13. The Normal School at New Britain shall be and remain a seminary for training teachers in the art of instructing and governing in the public schools of this State; receiving for that purpose such pupils as may be selected under the provisions of the two succeeding sections; and such sum as the State board of education may, in each year deem necessary for its support, not exceeding in any year seventeen thousand dollars, shall be annually paid therefor, from the treasury of the State, on the order of said board.

G. S. sec. 2247.
Object.

Support.

Sec. 14. The number of pupils shall be determined by the State board of education. The school visitors in each town shall, on request, annually forward to said board, the names of four persons, two of each sex, whom they, after examination, can recommend as suitable persons, in age, character, talents, and attainments, to be received as pupils in said school, but no persons shall be thus examined or recommended until they have signed and lodged with the school visitors a written declaration that their object in securing admission into said school is to become qualified to teach in public schools, and that they intend to engage in that employment in this State.

G. S. sec. 2248.
Number of pupils.

Applicants to be examined by school visitors.

Pupils must intend to teach in this State.

Sec. 15. Said board shall select by lot from the whole number of applicants from each county the proportion of pupils to which it is entitled by its population, of each sex an equal number; but no more than one pupil shall be admitted from any town, until each town from which an application is made shall have a pupil in the school. Said board may make regulations for the examination of candidates for admission, and may approve or reject the persons recommended by the school visitors. The board shall forward to each pupil appointed by it a certificate thereof, and shall return a list of the pupils

G. S. sec. 2249.
Selection of pupils by the board of education.

so appointed to the principal of the school. If there shall not be a sufficient number of applicants from any county to fill the number of appointments allowed to it, said board shall fill the vacancy by lot from the whole number of remaining applicants; and in case the number in the school does not equal the number determined by the board, graduates of high schools in this State, approved by the board, may be admitted by the secretary of the board on certificate of the principal of such high school. To all pupils admitted to the school, all its privileges, including tuition, shall be gratuitous.

Admission of
high school
graduates.

No charge for
tuition.

G. S. sec. 2250.
Regulation of
the school.

Account.

Report.

G. S. sec. 2251.
Model primary
school.

Sec. 16. Said board shall expend the funds¹ provided for the support of the Normal School, appoint and remove its teachers, prescribe its studies and exercises, and rules for its management and granting diplomas; shall file semi-annually with the Comptroller an account of its receipts and expenses,² an account of the Normal School for the preceding half-year, which account shall be audited by the Comptroller, and shall biennially report the condition of the school and its doings in connection therewith to the General Assembly.

Sec. 17. Said board may establish and maintain a model primary school, under a permanent teacher approved by it, in which the pupils of the Normal School shall have an opportunity to practice modes of instruction and discipline; may limit the number of scholars therein, and may discontinue it.

CONNECTICUT INDUSTRIAL SCHOOL FOR GIRLS,³

G. S. sec. 3638.
A school
district.

Sec. 18. The Connecticut Industrial School for girls shall, so long as it remains an incorporated institution of this State and maintains a school for the benefit of children connected therewith, be a separate school district, with a territorial limit including the grounds and buildings occupied by the inmates of said institution as homes. All other territory belonging to said institution

¹ Sec. 13.

² Sec. 12.

³ Secs. 214-225.

shall be a part of the district to which the same territory belonged before the Industrial School for girls was established.

Sec. 19. The State board of education shall be the school committee of said district, and shall possess all the powers and be subject to all the duties within said district that are possessed by the school visitors¹ in the several towns; and may appoint an acting school visitor² in said district, who shall possess, within said district, all the powers and be subject to all the duties of similar officers appointed by school visitors. The authority of the board of school visitors of the town in which said district is situated shall extend only to the remaining portion of said town; and their returns and certificates shall include only the children of such remaining portion.

G. S. sec. 3639.
School committee.

Acting Visitor.

Sec. 20. The treasurer of the State board of education shall draw an order each year in favor of said district on the treasurer of said town, for the proportionate amount to which said district may be entitled, of all moneys appropriated by law for the benefit, support, and encouragement of public schools, as is provided in respect to towns.³

G. S. sec. 3640.
Public money.

¹ Sec. 64.

² Sec. 75.

³ Chapter xii, page 69.

CHAPTER III.

Instruction, Employment and Attendance of Children.

[GEN. STAT. TITLE XXXV, CHAPTER CXXXI, PAGE 458.]

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| 21. Duties of parents and guardians.
22. Penalty; excuses for failure; procedure.
23. Attendance at private schools when sufficient; registers; inspection of certificates.
24. Employment of children under thirteen.
25. Penalty; certificates.
26. Employment of children under fourteen who have not attended school legal time; penalty.
27. Certificates of attendance, when required, by whom given; are evidence.
28. Penalty for evasion of provisions of this chapter.
29. Inspection of factories by school visitors. | 30. Selectmen may bind out neglected children.
31. Town regulations respecting truant and vagrant children.
32. Truant officers; procedure.
33. Truants, arrest of.
34. Truants may be committed to reform school, when.
35. Fees of truant officers.
36. Warrant and hearing.
37. Suspending judgment.
38. Appointment of district committee or janitor as special constables.
39. Vagrant girls may be committed to Industrial School. |
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G. S. sec. 2702.
 Children to be
 educated.

Section 21. All parents and those who have the care of children shall bring them up in some honest and lawful calling or employment, and instruct them or cause them to be instructed in reading, spelling, writing, English grammar, geography, and arithmetic;

And every parent or other person having control of any child over eight and under sixteen years of age, whose physical or mental condition is not such as to render its instruction inexpedient or impracticable, shall cause such child to attend a public day school regularly during the hours and terms while the public schools in the district wherein such child resides are in session, or to elsewhere receive thorough instruction during said hours and terms in the studies taught in said public schools.

But children under thirteen years of age who have attended school twenty-four weeks of the preceding twelve months, and children between thirteen and fourteen who have attended school twelve weeks of the preceding twelve months, and children over fourteen years of age, shall not be subject to the requirements of this section while lawfully employed to labor at home or elsewhere.

But this section shall not be construed to exempt any child who is enrolled as a member of a school from any

Parents and
 guardians must
 send children to
 school.

1867, ch. clxv.

rule concerning irregularity of attendance which has been enacted or may be enacted by the town school committee, board of visitors,¹ or board of education having control of the school.

Sec. 22. Each week's failure on the part of any person to comply with the provisions of the preceding section shall be a distinct offense, punishable with a fine not exceeding five dollars.

*G. S. sec. 2103.
Penalty.
1887, ch. cxlv.*

Said penalty shall not be incurred when it appears that the child is destitute of clothing suitable for attending school, and the parent or person having control of such child is unable to provide such clothing, or its mental or physical condition is such as to render its instruction inexpedient or impracticable.

Excuses.

All offenses concerning the same child shall be charged in separate counts, joined in one complaint. When a complaint contains more than one count the court may give sentence on one or more counts and suspend sentence on the remaining counts.

Complaint.

If at the end of twelve weeks from the date of the sentence it shall appear that the child concerned has attended school regularly during that time, then judgment on such remaining counts shall not be executed.

Procedure.

Sec. 23. Attendance of children at a school other than a public school shall not be regarded as compliance with the provisions of the laws of the State requiring parents and other persons having control of children to cause them to attend school, unless the teachers or persons having control of such school shall keep a register of attendance in form and manner prescribed by the State board of education for the public schools,² which register shall at all times during school hours be open to the inspection of the secretary and agents of the State board of education,³ and shall make such reports and returns concerning the school under their charge to the secretary of the State board of education as are required from the school visitors concerning the public schools,⁴ except that no report concerning expenses shall be required; and it shall be the

*G. S. sec. 2104.
1887, ch. cxlvi.
Attendance at
private schools,
when sufficient.*

Register.

¹ Sec. 64, note 2.

² Sec. 5.

³ Secs. 6, 7, 8.

⁴ Sec. 5.

duty of the secretary of the State board of education to furnish to the teachers or persons having charge of any school, on their request, such registers and blanks for returns as may be necessary for compliance with the provisions of this section.

G. S. sec. 1753.
Employment of
children under
13.

Sec. 24. No child under thirteen years of age shall be employed in any mechanical, mercantile, or manufacturing establishment.

G. S. sec. 1754.
Penalty.

Sec. 25. Any person acting for himself, or as agent in any way whatever of any mechanical, mercantile, or manufacturing establishment who shall employ or authorize or permit to be employed in such establishment any child, in violation of the preceding section, shall be fined not more than sixty dollars, and every week of such illegal employment shall be a distinct offense, provided that no person shall be punished under this section for the employment of any child when at the time of such employment the employer shall demand and thereafter during such employment keep on file the certificate¹ of any town clerk, or of the teacher of the school where such child last attended, stating that such child is more than thirteen years of age, or a like certificate of the parent or guardian of such child in such cases only where there is no record of the child's age in the office of the town clerk, and such child has not attended school in this State. Any parent or guardian who shall sign any certificate that his child or ward is more than thirteen years of age when in fact such child or ward is under thirteen years of age shall be fined not more than sixty dollars.²

Certificates.

G. S. sec. 2105.
Employment of
child under 14,
who has not at-
tended legal
time.

Sec. 26. No child under fourteen years of age, who has resided in the United States nine months, shall be employed to labor, unless such child shall have attended a day school in which instruction has been regularly and thoroughly given in the branches of education required in the public schools³ during at least twelve weeks, or sixty full school days of the twelve months next preceding any month in which such child shall be so employed, nor

¹ See sec. 27.

² See sec. 28.

³ Sec. 40.

unless six weeks at least of this attendance have been consecutive. Any person who shall employ a child contrary to the provisions of this section shall be fined not more than sixty dollars. Penalty.

Sec. 27. It shall be the duty of every parent, or other person having control of a child under fourteen years of age, to furnish the employer of such child a certificate signed by the teacher, school visitor, or committee of the school which the child attended, showing that the child has attended school as required by the preceding section. The employer of any such child shall require such certificate, shall keep it at his place of business during the time the child is in his employment, and shall show the same when demanded, during the usual business hours, to any school visitor of the town where the child is employed, or to the secretary or agent of the State board of education. Said certificate shall be evidence that the child has attended school as the law requires. G. S. sec. 2106. Certificate of school attendance. Evidence.

Sec. 28. Any parent or any person having control of a child, who, with intent to evade the provisions of this chapter, shall make any false statement¹ concerning the age of such child, or the time such child has resided in the United States, or shall instruct such child to make any such false statement, shall be fined not more than seven dollars, or be imprisoned not more than thirty days. G. S. sec. 2107. Penalty for false statement.

Sec. 29. The school visitors in every town shall, once or more in every year, examine into the situation of the children employed in all its manufacturing establishments, and ascertain whether all the provisions of this chapter are duly observed, and report all violations thereof to one of the grand jurors of the town. G. S. sec. 2108. Inspection of factories by school visitors.

Sec. 30. The selectmen, in every town, shall inspect the conduct of the heads of families, and if they find any who neglect the education of the children under their care, may admonish them to attend to their duty; and if they continue negligent, whereby the children grow rude, stubborn, and unruly, they shall, with the advice of a G. S. sec. 2109. Selectmen may bind out neglected children.

¹ See sec. 25.

justice of the peace, take such children from those who have the charge of them, and bind them out to some proper master, or to some charitable institution or society incorporated in this State for the care and instruction of such children,¹ males till twenty-one, and females till eighteen years of age, that they may be properly educated, and brought up in some lawful calling.

G. S. sec. 2110.
Town regulations respecting truants, and vagrant children.

Sec. 31. Each city and town may make regulations concerning habitual truants from school, and children between the ages of seven and sixteen years² wandering about its streets or public places, having no lawful occupation, nor attending school, and growing up in ignorance; and such by-laws, also, respecting such children, as shall conduce to their welfare and to public order, imposing suitable penalties, not exceeding twenty dollars for any one breach thereof; but no such town by-laws shall be valid, until approved by the superior court in any county.

G. S. sec. 2111.
Truant officers.

Procedure.

Sec. 32. Every town, and the mayor and aldermen of every city, having such by-laws, shall annually appoint three or more persons, who alone shall be authorized to prosecute for violations thereof. All warrants issued upon such prosecutions shall be returnable before any justice of the peace, or judge of the city or police court of the town or city.

G. S. sec. 2112.
Truants, arrest of.

Sec. 33. The police in any city, and bailiffs, constables, sheriffs and deputy sheriffs in their respective precincts, shall arrest all boys between eight and sixteen years of age, who habitually wander or loiter about the streets or public places, or anywhere beyond the proper control of their parents or guardians, during the usual school hours of the school term; and may stop any boy under sixteen years of age during such hours, and ascertain whether he is a truant from school; and if he be, shall send him to such school.

G. S. sec. 2113.
Truants may be committed to Reform School, when.

Sec. 34. Any boy arrested the third time under the provisions of the preceding section, if not immediately returned to school, shall be taken before the judge of

¹ See secs. 208, 219, 222.

² See sec. 206.

the criminal or police court, or any justice of the peace in the city, borough, or town where such arrest is made; and if it shall appear that such boy has no lawful occupation, or is not attending school, or is growing up in habits of idleness or immorality, or is an habitual truant, he may be committed to any institution of instruction or correction, or house of reformation in said city, borough, or town, for not more than three years, or, with the approval of the selectmen, to the State reform school.¹

Sec. 35. Officers other than policemen of cities shall receive for making the arrests required by the two preceding sections, such fees, not exceeding the fees allowed by law for making other arrests, as may be allowed by the selectmen of the town in which such arrests are made; but unless a warrant was issued by a judge of the criminal or police court, or by a justice of the peace, the officer shall, before receiving his fees, present to the selectmen of the town a written statement showing the name of each boy arrested, the day on which the arrest was made, and if the boy was returned to school, the name or number of the school to which he was so returned.

G. S. sec. 2114.
Fees of truant
officers.

Sec. 36. In all cases arising under the provisions of the three preceding sections, a proper warrant shall be issued by the judge of the criminal court of the city, or by a justice of the peace in the borough or town, where such arrest is made; and the father, if living, or if not, the mother or guardian of such boy, shall be notified, if such parent or guardian can be found, of the day and time of hearing. The fees of the judge or justice shall be two dollars for such hearing; and all expenses shall be paid by the city, borough, or town in and for which he exercises such jurisdiction.

G. S. sec. 2115.
Warrant and
hearing.

Fees.

Sec. 37. After the hearing in any such case, such judge or justice of the peace may, at his discretion, indefinitely suspend the rendition of judgment.

G. S. sec. 2116.
Suspending
judgment.

¹ Sec. 206.

G. S. sec. 70.
Appointment of
district commit-
tee or janitor
as special con-
stables.

Sec. 38. The selectmen of any town may appoint committees of school districts and janitors of school buildings, and other persons on nomination by the school visitors of the town or board of education of an incorporated school district, special constables. Said constables shall have power in the town in which they reside, and in adjoining towns when offenders have escaped thither, to arrest for truancy and other causes named in section 33, and for disturbance of schools and school meetings and damage to school property,¹ and to serve criminal process in all such cases.

G. S. sec. 2117.
Vagrant girls,
may be commit-
ted to Industrial
School.

Sec. 39. Upon the request of the parent or guardian of any girl between eight and sixteen years of age, a warrant may be issued for her arrest in the same manner and on the same conditions as is provided in sections 34-37 with respect to boys; and thereupon the same proceedings may be had, as are above provided, except that said girls may be committed to the Connecticut Industrial School for Girls.²

CHAPTER IV.

Duties of Towns.³

[GEN. STAT. TITLE XXXV, CHAPTER CXXXII, PAGE 462.]

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| 40. Number of weeks of school each year ; | 47. Instruction in music. |
| branches to be taught, etc. | 48. Text-books and supplies. |
| 41. Physiology and Hygiene to be taught. | 49. School visitors. |
| 42. Powers in relation to High Schools. | 50. Mode of voting for school officers. |
| 43. High School committees. | 51. Names of persons elected to be returned |
| 44. Evening schools for those over fourteen. | to Secretary of State. |
| 45. Kindergartens. | 52. Treasurer of permanent funds. |
| 46. May direct school visitors to employ | 53. Duties of selectmen. |
| teachers. | |

G. S. sec. 2118.
Number of
weeks of school
each year.

Section 40. Public schools shall be maintained⁴ for at least thirty-six weeks in each year, in every school

¹ Secs. 243, 248.

² Sec. 2114.

³ For powers as to school-houses, see sec. 123.

⁴ Every town, or school district, by legal meeting of its qualified voters, may make appropriations of specific sums of money for any purpose author-

district in which the number of persons between four and sixteen years of age at the last preceding enumeration was one hundred or more,

And for at least thirty weeks in every district in which the number of persons between said ages was twenty-four or more,

And for at least twenty-four weeks in the other districts,

And no town shall receive any money from the State treasury for any district unless the school therein has been kept during the time herein required,

But no school need be maintained in any district in which the average attendance¹ of persons at the school in said district during the preceding year, ending the thirty-first day of August,² was less than eight.³ When they need not be maintained.

In said schools, shall be taught by teachers found duly qualified by the school visitors,⁴ reading, spelling, writing, English grammar, geography, and arithmetic, and such other studies, including training in manual arts, as may be prescribed by the board of school visitors.⁵ Branches.

And said schools shall be open to all children, over four years of age, in the respective districts,⁶ without discrimination on account of race or color.

ized by law, and by the warnings of the meetings at which the appropriations are made. G. S., sec. 377.

Whenever any specific appropriations of money may have been made by any community or corporation named in the preceding section, every agent, commissioner, or executive officer of any town, or school district, who shall willfully authorize or contract for the expenditure of any money, or the creation of any debt for any purpose in excess of the amount specifically appropriated for such purpose by the community or corporation of which he is the agent, commissioner, or executive officer, unless such expenditure shall be made or debt contracted for the necessary repair of roads or bridges, or the necessary support of schools or paupers, in cases arising after the proper appropriation has been exhausted, shall be fined, not exceeding one thousand dollars or imprisoned in the county jail not exceeding one year, or both. G. S., sec. 378.

¹ Method of obtaining average attendance is given in registers furnished by the State.

² Sec. 3.

³ For voluntary union of small districts, see sec. 167.

⁴ Sec. 150.

⁵ Sections 41, 45, 47, 68.

⁶ But children under five may be excluded, sec. 68.

G. S. sec. 2141.
Physiology and
hygiene to be
taught.

Sec. 41. Physiology and hygiene, relating especially to the effects of alcoholic liquors, stimulants, and narcotics on the human system, shall be taught as branches of study in the public schools, and persons desiring to teach in such schools shall be found qualified to teach said branches of study before receiving the certificate required by law.¹

G. S. sec. 2215.
Powers of
towns in rela-
tion to high
schools.

Sec. 42. In addition to the schools required by law in every town, any town may establish and maintain schools of a higher grade within its limits, and for such purpose purchase, receive, hold, and convey any property; build and repair school-houses; lay taxes, and make contracts and adopt regulations for the management of such schools.²

G. S. sec. 2216.
High school
committees.

Sec. 43. Any town may choose, by ballot, a committee of not more than five residents of the town, who shall have all such powers and duties, in relation to such schools, as are by law imposed upon district committees, in relation to district schools.³

G. S. sec. 2119.
Evening
schools for
those over 14.

Sec. 44. Every town may establish and maintain in addition to the schools required by law, public evening schools for the instruction of persons over fourteen years of age, in the branches taught in the public day schools,⁴ and such other studies as may be prescribed by the board of school visitors of such town.⁵

G. S. sec. 2120.
Kindergartens.

Sec. 45. Any town or school district may establish and maintain a kindergarten school, which any child over three and under seven years of age, residing in such town or school district, may attend.

G. S. sec. 2122.
May direct
school visitors
to employ
teachers.

Sec. 46. Any town may direct the school visitors to employ the teachers for all public schools of the town for such terms of the schools as it may specify.⁶

G. S. sec. 2123.
Instruction in
music.

Sec. 47. Any town, at its annual meeting, may direct its school visitors to employ one or more teachers

¹ Sec. 9.

² For duties of school visitors in connection with High School, see sec. 69.

³ Chapter ix.

⁴ Sec. 40.

⁵ For management, support and returns, etc., see secs. 70-72.

⁶ Secs. 64, 86, 146.

to give instruction in the rudiments and principles of vocal and instrumental music in its several schools, and the salary of such teachers shall be paid by such town.

Sec. 48. Any town, at its annual meeting, may direct its school visitors, or board of education, or town committee, to purchase at the expense of said town, the text-books and other school supplies used in the public schools of said town, and said text-books and supplies shall be loaned to the pupils of said public schools free of charge, subject to such rules and regulations as the school visitors or the board of education or town committee may prescribe.¹

G. S. sec. 2131.
Text-books and supplies.

Sec. 49. There shall be elected by every town, at its annual town meeting, such number of school visitors as such town is entitled to and required by law to elect,² and they shall be elected in the manner and for the term or terms by law prescribed.

G. S. sec. 41.
School visitors.

Sec. 50. Treasurers of town deposit funds, agents of town deposit funds,³ * * and school visitors shall be voted for by ballot. But any town, at a town meeting duly warned for the purpose, may pass votes determining, within the limits by law provided,⁴ the number of its officers, and prescribe the mode in which they shall be voted for at subsequent meetings, and no alteration of such number or mode shall take effect until after the adjournment of the meeting by which it was adopted.

G. S. sec. 44.
Mode of voting for school officers.

Sec. 51. The town clerks of the several towns shall, within ten days after the election of such officers, return to the Secretary of the State the names of the persons elected to the offices * * of school visitors or school committee with date of expiration of term. And any town clerk neglecting to make such return shall be liable to a fine not exceeding twenty-five dollars.

G. S. sec. 54.
Number of persons elected to be returned to Secretary of State.

Sec. 52. Every town holding any permanent funds received from any school society or district shall annually elect, by ballot, a school fund treasurer; who shall

G. S. sec. 2125.
Treasurer of permanent funds.

¹ For other provisions as to text-books, see secs. 5, 65, 66.

² Sections 50, 62.

³ Sec. 187.

⁴ Secs. 49, 62.

have charge of such funds, keep a separate account of the same, and give bonds with surety, to the satisfaction of the selectmen, for the faithful discharge of the duties of his office.

G. S., sec. 2126.
Duties of selectmen.

Sec. 53. The selectmen shall have the management of any property appertaining to schools and belonging to the town, and shall lodge with the treasurer all bonds, leases, notes, and other securities, which have not been, or shall not be, intrusted to others by the grantor, the General Assembly, or the town; shall pay to the treasurer all money which they may collect and receive for the use of schools; cause the boundary lines of school districts to be entered on the records of the town;¹ designate the time, place,² and object of holding the first meeting in any new district;³ and perform all other lawful acts required of them by the town, or necessary to carry into full effect the powers of towns with regard to schools.³

¹ Secs. 87, 88.

² Sec. 106.

³ Powers and duties of selectmen in connection with:

1. Enforcement of laws relating to attendance:
 1. Shall inspect families and bind out neglected children, sec. 30.
 2. Approve commitment of truants to Reform School, sec. 34.
 3. Allow fees of truant officers, sec. 35.
 4. Appoint special constables on nomination of school visitors—sec. 38.
2. School Societies. Apportion trust funds and indebtedness of societies lying in two or more towns, sec. 56.
3. Boundary lines of districts:
 1. May settle boundary lines, sec. 88.
 2. Notice of appeal how served, sec. 91.
4. Division of districts:
 1. Shall distribute property, sec. 92.
 2. Set off school house and award money in case of joint districts, sec. 93.
5. District meetings:
 1. Determine in certain cases place of meeting when there is no school house, sec. 97.
 2. Give notice of meeting if no district officers, sec. 98, 106.

CHAPTER V.

Transfer of the Obligations and Property of School Societies to Towns.

[GEN. STAT. TITLE XXXV, CHAPTER CXXXIII, PAGE 464].

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| 54. Liability of towns for debts of school societies.
55. Records of school societies.
56. Towns to succeed to properties of school societies, etc.
57. Districts not co-extensive with towns organized; may choose board of education; powers and duties. | 58. Ballot boxes to be open how long.
59. Property of such societies not affected.
60. Powers and duties of boards of education; acting visitor; authority of school visitors in remaining portion of towns.
61. Apportionment of public money. |
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Section 54. All debts, obligations, or pecuniary trusts of any school society, heretofore existing, which pertain to schools, shall remain in force against the town or towns in which such society was situated.

G. S. sec. 2127.
Liability of towns for debts of school societies.

6. Consolidated districts :

1. Shall appraise property in case of joint districts, sec. 132.
 2. Shall give notice of consolidation to adjoining towns, sec. 135.
 3. May call special meetings to close up affairs of abolished districts, sec. 136.
 4. Shall lay tax and pay debts after consolidation, sec. 137.
 5. Shall collect all dues and demands in favor of abolished district, sec. 138.
 6. Determine amounts to be paid by districts to towns on abandonment of union system and lay tax if necessary, sec. 140.
 7. Shall provide ballot boxes for election in certain cases, sec. 125.
7. Estimates : 1. Shall in joint board meeting make preliminary estimates, sec. 161.
8. Appropriations : Shall in joint board meeting fix amounts for respective districts, sec. 162.
9. 1. Shall in joint board meeting report cost for preceding year to town meeting, sec. 162.
2. Shall in joint board meeting pass upon cost of school in excess of amount of appropriation, sec. 163.
 3. Shall cause sums due joint districts to be paid, sec. 170.
 4. Shall give order for money in case of district neglecting to open school.
10. Taxation. Act with assessors as board of relief, secs. 193, 194.

G. S. sec. 2128.
Records of
school societies.

Sec. 55. The records of school societies shall be deposited, and forever kept with the records of the towns in which such societies were situated; and where any school society lay within the limits of two or more towns, with the records of the town in which the greater part of its territory lay. And said records, whether they appear to have been made at a meeting held in pursuance of a warning or otherwise, or whether informal or otherwise, provided the same can be clearly understood, are hereby validated and confirmed.

G. S. sec. 2129.
Towns to suc-
ceed to the
property of
school societies.

Sec. 56. All property, heretofore held for school purposes by school societies, shall vest in the towns in which such societies were situated, to be held by such towns for the same purposes.¹ Where there were two or more school societies in any town, any of which had a permanent fund for the support of schools, it shall be held in trust by said town, for the support of schools for the inhabitants of the territory, formerly embraced within such society; and where any school society lay within the limits of two or more towns, and had any permanent fund, it shall be divided between such towns; and each shall hold its portion in trust for the support of schools for the inhabitants of that portion of such society lying within its limits; and any indebtedness of any such society shall be apportioned in the same manner between said towns; which distribution or apportionment shall be made by the selectmen of said town; and, if they cannot agree, then, upon application of the selectmen of either town, and notice to the other, by a committee of three disinterested persons to be appointed by the Superior Court in the county in which either town is situated; who shall report to said court, which report, when accepted, shall be final; and such agreement or report shall be recorded upon the records of each town.

Permanent
funds.

Apportionment
when societies
extend over
more than one
town.

Mode of appor-
tionment of
indebtedness.

G. S. sec. 2130.
Districts not co-
extensive with
the town,
organized un-
der Act of 1855.

Sec. 57. School societies heretofore organized under the Act of 1855, entitled "An Act in addition to and in alteration of an Act concerning Education," which

¹ Such funds may be used for the benefit of poor scholars in the public schools in the limits of the old society. 39 Conn., 63.

are not co-extensive with the towns in which they are situated, shall be and remain school districts of said towns, with all the powers and duties of school districts,¹ as specified in this title ;

Except that each shall annually choose, on the third Monday of September, instead of a district committee, a board of education consisting of six or nine persons, who shall be chosen by ballot, one-third to be chosen each year, to serve for three years and until others are elected in their places.

To choose
board of educa-
tion.

That number of persons sufficient to fill the board who have the highest number of votes shall be elected.

Said board shall have all the powers, and be subject to all the duties of district committees,²

Powers and du-
ties of such
board.

And shall also have the general superintendence of the public schools in the district, and the management of its property ;

Shall lodge all bonds, leases, notes, and other securities, with the treasurer of said district, unless the same have been intrusted to others by the grantors, or the General Assembly ;

Pay into the treasury of the district all moneys which they may receive for the support of schools ;

Determine the number and qualifications of the scholars to be admitted into each school ;

Supply the requisite number of qualified teachers ;

Ascertain annually, during the first two weeks of September, the expense of maintaining the schools under their superintendence during the year ending the thirty first day of the previous August,³ and report the same, with the amount of moneys received towards the payment thereof, to the district, at a meeting to be held on the third Monday of September in each year ;

Shall, at the same time, make a full report of their doings, and the condition of such schools, and all important matters concerning the same ;

And shall perform all lawful acts required of them

¹ Chapter vii, page 44. ² Chapter ix, page 64 ; see sec. 152. ³ Sec. 3.

by the district, or necessary to carry into effect the powers and duties herein defined.

Reorganization
of other
societies into
districts.

All existing school societies, in which school districts have been or may be abolished, may avail themselves of the privileges specified in this section.¹

G. S. sec. 2131.
Ballot boxes to
be open how
long.

Sec. 58. In all school districts in which boards of education are required by law to be elected by ballot, the ballot boxes shall be open for the reception of votes; in districts having less than four hundred voters, three hours and not longer; in districts having over four hundred and less than one thousand voters, five hours and not longer; and no box for the reception of ballots shall remain open later than half past eight o'clock in the afternoon of the day of such election.

G. S. sec. 2131.
Property of
such societies
not affected.

Sec. 59. The property of the school societies, specified in section 57, shall not be affected by the provisions of this title.

G. S. sec. 2132.
Powers and du-
ties of boards of
education.

Sec. 60. The board of education, appointed by any school district, organized under the provisions of section 57, shall possess all the powers and be subject to all the duties within said district, which are possessed by the school visitors in the several towns;²

Shall make their annual report to the secretary of the State board of education, and send their returns and certificates directly to the Comptroller;

Board may ap-
point acting
school visitor.

And may appoint an acting school visitor in said district, who shall possess, within said district, all the powers and be subject to all the duties of similar officers appointed by school visitors.³

Authority of
board of school
visitors in re-
mainder of
town.

The authority of the board of school visitors of the town in which said district is situated shall extend only to the remaining portion of said town; and their returns and certificates shall include only the children of such remaining portion.⁴

¹ The districts which availed themselves of the provisions of this chapter are City District of New Haven, Westville of New Haven, Middletown City District, Norwich Central, Norwich West Chelsea, Norwich Town Street.

² Sec. 64.

³ Sec. 75.

⁴ Special mention of duties is made as to

1. Evening Schools, sec. 72, 73. 2. Employment of children, sec. 8.

3. Supplementary reading books, sec. 66. 4. Free text-books, sec. 48.

Sec. 61. The Comptroller, on application of the board of education of such district, shall draw an order on the Treasurer in favor of such district, for the proportionate amount, to which such district may be entitled, of all moneys appropriated by law for the benefit, support, and encouragement of public schools, as is provided in respect to towns;¹ and the town in which said district is situated shall be entitled to receive only its proportionate amount of such public money, for the children in the remaining portion of said town.

G. S. sec. 2133.
Apportionment
of public
money.

CHAPTER VI.

School Visitors.

[GEN. STAT. TITLE XXXV, CHAPTER CXXXIV, PAGE 466.]

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| 62. Classification and filling of vacancies. | 74. Visitation of schools ; report to town. |
| 63. How chosen. | 75. Acting school visitor or superintendent, |
| 64. Organization, duties and powers. | appointment of. |
| 65. Change of text-books. | 76. Returns to Comptroller. |
| 66. Supplementary reading. | 77. Certificate to selectmen. |
| 67. Vaccination of school children. | 78. Duties of secretary ; forfeiture for failure |
| 68. Children under five may be excluded from | to make returns. |
| school. | 79. Secretary of State board to report forfeit- |
| 69. Powers in relation to high schools. | ures. |
| 70. Supervision of evening schools. | 80. Address of district committees and teach- |
| 71. Expenses of evening schools paid in part | ers to be sent to State board. |
| by the State. | 81. Compensation of secretary and acting |
| 72. Evening schools must be maintained how | visitors. |
| long ; report. | 82. Compensation of acting school visitor. |
| 73. Meetings. | 83. Reports and returns, how sworn to. |

Section 62. There shall be in every town² a board of school visitors, composed of three, six, or nine members, as such town may determine,³ divided into three equal classes, the first class shall hold office until the next annual town meeting, the second class until the second annual town meeting, and the third class until

G. S. sec. 2121.
Classes.

¹ Chapter xii.

² Secs. 49, 50.

³ When a school district is organized under the provisions of chapter v, school visitors' authority extends to remaining portion of town only. Sec. 60.

Vacancies, how filled.

the third annual town meeting following, and until others are elected in their places, *provided*, that when said board is composed of only three members, they shall not be so divided into classes, and shall be elected for three years. Should any vacancy occur, the remaining members of the board may fill it till the next annual town meeting, when all vacancies shall be filled in the manner prescribed in the succeeding section, and the ballots shall distinctly specify the vacancy to be filled.

G. S. sec. 2122.
How chosen.

Sec. 63. School visitors shall be chosen by ballot.¹

If the number to be chosen be two, four, six, or eight, no person shall vote for more than half of such number. If the number to be chosen be three, no person shall vote for more than two; if five, not more than three; if seven, not more than four; if nine, not more than five. That number of persons sufficient to fill the board, who have the highest number of votes, shall be elected. In case of a tie, that person whose name stands first or highest on the greatest number of ballots shall be elected.

G. S. sec. 2135.
Organization.
Duties.

Sec. 64. Each board of school visitors shall annually choose from themselves a chairman and a secretary.

They shall prescribe rules² for the management, studies,³ classification, and discipline of the public schools,

And, subject to the control of the State board of education, the text-books to be used;⁴

Examination of teachers.

Shall, as a board, or by a committee by them appointed, examine all persons desiring to teach in the public schools; and give to those with whose moral character and ability to teach they are satisfied, if found qualified to teach reading, writing, arithmetic, and grammar thoroughly, and the rudiments of geography and history, and of

¹ Sec. 50.

² That rules as to attendance can be made is implied in sec. 21. Rules need not be recorded. 105 Mass., 475. In the absence of rules established by the school board or other proper authority, the teacher has a right to make all necessary and proper rules for the regulation of the school. 53 Conn. 481.

³ Secs. 40, 44, 47. May prescribe studies, sec. 40.

⁴ Secs. 5, 9, 65, 66.

drawing if required by the board, a certificate,¹ either authorizing the holder to teach in any district in the town so long as desired, without further examination, unless specially ordered, or to teach in any such district during the ensuing term only, or to teach only in a district therein named during such term; and if a person is examined in and found qualified to teach other branches besides those required in all cases, such branches shall be named in his certificate.²

Certificates.

Higher branches to be named in the certificate.

They shall revoke the certificates of such teachers as shall at any time be found incompetent to teach or to manage a school, or fail to conform to the requirements of the board;

Shall revoke certificates of incompetent teachers.

Shall, if the town so direct, employ the teachers for all its public schools,³ after consulting with the several district committees;

Town may direct them to employ teachers.

Shall make proper rules for the arrangement, use, and safe-keeping of the district and high school libraries provided in part by the State, and approve the books selected therefor;⁴

To make rules for libraries.

And shall fill vacancies in district offices,⁵ fix sites, and approve plans for school-houses,⁶

And superintend any high or graded school, in the manner specified in this title.^{7 8}

To fix school-house sites. High schools.

¹ Sec. 150. (a) May accept certificate of State, sec. 10. (b) Shall examine high school teachers, sec. 69. (c) Teachers must be qualified to teach Physiology. Sec. 41.

² A general certificate, without limitation of time, given to a teacher, qualifies him to teach in any district of the town, until it is annulled or a re-examination ordered. 36 Conn., 282.

³ Secs. 46, 86, 146. May employ teachers if district neglect or refuse. Sec. 114.

⁴ Sec. 149. ⁵ Secs. 69, 110. ⁶ Secs. 116, 117. ⁷ Sec. 69.

⁸ Powers and duties not given above are stated in connection with the following:

1. Enforcement of laws relating to:

(a) Employment of children. Sec. 8.

(b) Attendance and instruction. Sec. 29.

1. May inspect certificates of attendance. Sec. 27.

2. May grant certificates of attendance. Sec. 27.

3. May nominate to selectmen persons to be appointed special constables. Sec. 38.

2. Normal school; shall assist in selection of students. Secs. 14, 15.

G. S. sec. 2136.
Change of text-
books.

Sec. 65. No board of school visitors or school committee shall change any text-books used in the public schools, except by a two-thirds vote of all the members of the board or committee, notice of such intended change having been previously given at a meeting of said board held at least one week previous to such change.

3. Returns to school visitors by (a) district committee of beginning and close of term. Sec. 147.
 - (b) District committee of enumeration. Secs. 147, 152.
 - (c) District committee of enumeration in the parts of joint districts. Sec. 147.
 - (d) District committee of receipts, expenditures, statistics, etc. Sec. 147.
 - (e) District clerk of names of district officers. Sec. 109.
4. School Buildings (a) Inspection. Sec. 74. Buildings must be in satisfactory condition. Sec. 115.
 - (b) Approve sites. Sec. 116.
 - (c) May fix sites in adjoining towns on application of a district. Sec. 117.
5. Enumeration and distribution of State money :
 - (a) Shall make enumeration if committee fails. Sec. 152.
 - (b) Shall examine returns of enumeration. Sec. 155.
 - (c) Shall lodge returns with town treasurer. Sec. 155.
 - (d) Shall make returns to Comptroller. Secs. 76, 155.
 - (e) Shall certify to Comptroller that schools have been kept according to law. Sec. 156.
 - (f) Shall withhold certificate if schools have not been kept according to law. Sec. 157.
6. Estimates (a) Shall as joint board with selectmen make preliminary estimates, and notify committees. Sec. 161.
 - (b) Shall as joint board with selectmen present estimates to town meeting. Sec. 162.
7. Appropriations (a) Shall as joint board with selectmen fix amounts and notify each district. Sec. 162.
8. Expenses (a) Shall as joint board with selectmen report cost for preceding year to town meeting. Sec. 162.
 - (b) Shall as joint board with selectmen pass upon expense in addition to amounts appropriated. Sec. 163.
 - (c) Apportion expense of joint districts, and report to selectmen of each town. Sec. 170.
9. Payment of teachers. Shall give certificate to selectmen that schools have been kept according to law. Secs. 163, 164.
10. Consolidated districts. On abandonment of town system town committee remains board of visitors. Sec. 142.
11. Admission of non-resident scholars. May in connection with committee admit such scholars. Sec. 122.
12. Union of small schools. Shall approve such union. Sec. 167.

Sec. 66. The board of education of any district or the board of school visitors or town school committee of any town may, in addition to the text-books prescribed according to the provisions of section 64, prescribe the use of other series of books to be used as text-books in reading; *provided*, such additional series are purchased by the district or town and the use thereof furnished free to the scholars.¹

G. S. sec. 2136, 1887, ch. cxliv. Supplementary reading.

Sec. 67. The board of school visitors of any town shall have authority to require that every child shall be vaccinated before being permitted to attend any public school under their jurisdiction. If the parents or guardians of any children are unable to pay for vaccination when so required, the expense of vaccinating such children shall, on the recommendation of said board, be paid out of the town treasury.

G. S. sec. 2137. Vaccination of public school children.

Expenses how defrayed.

Sec. 68. The board of school visitors of any town may exclude from any school under their supervision all children under five years of age whenever in their judgment the interest of such school will be thereby promoted.²

G. S. sec. 2137. Children under five may be excluded from school.

Sec. 69. When any town shall maintain any school of a high grade,³ the board of school visitors shall prescribe rules for the admission of scholars into it,

G. S. sec. 2217. Powers in relation to high schools.

And for their studies, books, and classification;

Examine all candidates for teachers in such school, and give to those with whose moral character, literary attainments, and ability to teach, they are satisfied, a certificate, stating what branches they are found capable of teaching;

Visit such school at least twice during each term;

May revoke the certificate of any teacher, at any time, for the causes provided in section 64;

And, if the town fail to elect a committee, as provided in section 43, shall appoint such committee, whose powers and duties shall be the same as if appointed by the town.

¹ Duties as to free text-books, sec. 48.

² Sec. 40. ³ Secs. 42, 43.

G. S. sec. 2138.
Supervision of
evening schools

Sec. 70. The board of school visitors shall have the same supervision over public evening schools,¹ established pursuant to this title, as is by law conferred upon the school committee of consolidated districts.²

G. S. sec. 2139.
Expenses paid
in part by the
State.

Sec. 71. The board of school visitors, board of education, or town committee, as the case may be, of any town wherein such public evening schools are established and maintained, shall, annually, upon the first Monday of June, certify to the Comptroller the average number of scholars attending such schools within the current school year,³ said year beginning on the first day of September; and the Comptroller shall thereupon draw his order on the Treasurer of the State in favor of such board of school visitors, board of education, or town committee, for the use of such schools, in the sum of one dollar and a half for each scholar included in the number so certified, and the treasurer shall pay the same upon presentation.

G. S. sec. 2140.
Evening
schools must be
maintained how
long.

Sec. 72. It shall be the duty of boards of school visitors, boards of education,⁴ and town committees⁵ of towns claiming the benefits of the preceding section to maintain such evening schools for a continuous term of not less than fifty sessions in each school year, as above defined, and to report annually during the month of September to the State board of education concerning the condition and progress of the same.⁶

Report.

G. S. sec. 2143.
Meetings.

Sec. 73. The chairman of each board of school visitors, or, in case of his absence or inability to act, its secretary, shall call a meeting of the board at least once every six months, and whenever he deems it necessary, or is requested in writing so to do by three of its members. If no meeting is called within fourteen days after such a request has been made, one may be called by any three members of the board, by giving the usual written notice to the others.

G. S. sec. 2143.
Visitation of
schools.

Sec. 74. The board shall annually assign the duty of visiting the schools of the town to one or more of

¹ Sec. 44.

² Sec. 129.

³ Sec. 3.

⁴ Secs. 57, 60.

⁵ Secs. 128, 129.

⁶ Sec. 5.

their number, who shall be called the acting school visitor, or visitors,¹

And who shall visit such schools at least twice during each term,—once within four weeks after the opening, and again during the four weeks preceding the close; at which visit the school-house and out-buildings,² school register,³ and library⁴ shall be examined, and the studies, discipline, mode of teaching, and general condition of the school investigated.

Half a day shall be spent in each school so visited, unless otherwise directed by the board.

They shall, one week at least before the annual town meeting, submit to the board a full written report of their proceedings, and of the condition of the several schools during the year preceding, with plans and suggestions for their improvement. Report to town.

Sec. 75. Boards of education,⁵ town committees,⁶ and boards of school visitors may appoint a person, not one of their own number, to be acting school visitor or superintendent of schools, who shall have all the powers, perform all the duties, and receive the pay prescribed by law for acting school visitors, and any town at its annual town meeting may fix the compensation⁷ of the acting school visitor or superintendent. G. S. sec. 2144. Appointment of acting school visitor or superintendent.
His powers, duties.
Compensation.

Sec. 76. The board of school visitors shall make returns, signed by the chairman and secretary, of the number of persons over four and under sixteen years of age in their respective towns, to the Comptroller,⁸ G. S. sec. 2145. Returns to the Comptroller.

And shall in said returns specify how many of those thus returned attended some school, public or private, within the previous calendar year, and how many did not attend any school within that year.

They shall also state how many of those who attended no school were under five years of age, how many were over five and under eight, how many were over eight and

¹ For duties in connection with payment of teachers, etc., secs. 163, 164.

² Sec. 115.

³ Sec. 5.

⁴ Sec. 149.

⁵ Secs. 57, 60.

⁶ Secs. 128, 129.

⁷ Secs. 80, 81.

⁸ Secs. 152, 155, 156.

under fourteen, and how many were over fourteen and under sixteen years of age,

Town not to receive school money from the State unless return be made.

And the chairman and secretary shall draw orders on him for the public money due the town as prescribed in chapter xii. But no town shall receive any money for schools, from the State treasury, unless the returns herein required are duly made.

Certificate to selectmen.

After the close of each term of school in any district, the school visitors shall give to the selectmen a certificate, stating whether each school has been kept in all respects according to law or not ;¹

Joint duties with selectmen.

And shall, in connection with the selectmen,² perform the duties required by the provisions of said chapter, and make the apportionment required in the case of districts formed from parts of two or more towns, as prescribed in section 170.

G. S. sec. 2746. Duties of the Secretary.

Sec. 77. The secretary of the board shall keep a record of all its proceedings and of those of the acting school visitors, and of the decisions of the joint board of school visitors and selectmen,³ required by said chapter, in a book which he shall provide for that purpose at the expense of the town ;

Shall submit to the town at its annual meeting, a written report of the doings of the board, with the report of the acting school visitors ;⁴

And on or before the fifteenth day of October, send two copies of said reports to the secretary of the State board of education ; and shall furnish such additional returns and statistics respecting the schools of the town as said board may call for ;

Forfeiture for failure to make returns to State board.

And if the returns and statistics⁵ called for by the secretary of the State board of education shall not be sent to him on or before said fifteenth day of October, then every town and every school district⁶ required by law to make separate returns, whose returns and statistics shall be willfully or negligently delayed till after that

¹ Secs. 163, 164.

² Secs. 161, 162, 163, 164.

³ Duties of joint board, secs. 161, 162, 163, 168.

⁴ Sec. 74.

⁵ See Sec. 5, note.

⁶ Secs. 60, 129.

day, shall forfeit of the one dollar and fifty cents per child which is paid from the State treasury,¹ one per cent. for the first week of such delay, two per cent. for a delay of two weeks, three per cent. for a delay of three weeks, five per cent. for a delay of four weeks, and ten per cent. for a delay exceeding four weeks.

Sec. 78. The secretary of the State board of education shall annually, in January, give to the Comptroller, in writing, a list of the towns and districts which have incurred the forfeiture described in the preceding section, with the percentage of forfeiture in each case; and the Comptroller, in making payment of school moneys aforesaid,² shall deduct the amount of money which each town or district shall have forfeited under the provisions of said section.³

G. S. sec. 2147.
Secretary of
State board to
report forfeitures.

Sec. 79. The school visitors of each town, and the board of education in consolidated districts,⁴ shall annually in the month of October return to the secretary of the State board of education⁵ the names and post-office addresses of district committees, and also within four weeks from the beginning of each school term return the name and post-office address of each teacher employed in the public schools of such town or consolidated district.

G. S. sec. 2148.
Address of district committees and teachers to be sent to State board of education.

Sec. 80. The secretary and other acting school visitors shall be paid by the town for the time actually employed in the performance of their duties, two dollars a day, each, and in like proportion for parts of days, and such further compensation as their respective towns may fix at an annual meeting.

G. S. sec. 2150.
Compensation of secretary and acting visitor.

Sec. 81. Acting school visitors shall receive two dollars a day each for the time actually employed in the performance of their duties, and like proportion for parts of days, and such further compensation as their respective towns may fix at an annual meeting.

G. S. sec. 2151.
Compensation of acting school visitors.

Sec. 82. All reports and returns, required by the provisions of this title to be made on oath or affirmation, may be affirmed or sworn to before any school visitor.

G. S. sec. 2151.
Reports and returns how sworn to.

¹ Sec. 156.

² Sec. 156.

³ Remission of forfeitures, sec. 171.

⁴ Chapter viii.

⁵ See note to sec. 5.

CHAPTER VII.

School Districts.

[GEN. STAT. CHAPTER CXXXV, PAGE 470.]

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| <p>83. Committee to be <i>ex-officio</i> agent.</p> <p>84. Formation and alteration of districts.</p> <p>85. Division of districts formed from parts of two or more towns.</p> <p>86. Powers of school districts.</p> <p>87. Records of names and bounds.</p> <p>88. Settlement of boundary lines.</p> <p>89. Notice of proposition to alter school districts.</p> <p>90. Appeal to superior court.</p> <p>91. Proceedings on appeals.</p> <p>92. Disposition of school property on alteration of districts.</p> <p>93. Division of real estate.</p> <p>94. Associations formed under Act of 1841.</p> <p>95. Control of districts formed from parts of two or more towns.</p> <p>96. District meetings, when held and how allied.</p> <p>97. District meetings, where held.</p> <p>98. Notice of meetings.</p> <p>99. Legal voters of school districts.</p> <p>100. What paupers may vote in district meetings.</p> <p>101. Conduct of school meeting, registry list, etc.</p> <p>102. What matters decided by ballot, polling places, etc.</p> | <p>103. Special meetings.</p> <p>104. Compensation for preparing lists.</p> <p>105. Choice of moderator; illegal voting in district meeting.</p> <p>106. Officers, qualifications and appointment.</p> <p>107. Appointment of a committee of three.</p> <p>108. Majority to elect.</p> <p>109. Certificate of election of officers to be forwarded to secretary of board of school visitors; penalty.</p> <p>110. Vacancies how filled.</p> <p>111. Duties of officers.</p> <p>112. Bonds may be required from officers.</p> <p>113. Records and papers to be open to inspection; penalty.</p> <p>114. Neglect of a district to open school.</p> <p>115. Every district must have a school house.</p> <p>116. Erection of school houses.</p> <p>117. Fixing site.</p> <p>118. Districts may take land for school houses.</p> <p>119. Mode of taking land.</p> <p>120. Owners to be paid before land is occupied.</p> <p>121. Land of ecclesiastical society not to be taken.</p> <p>122. Non-resident scholars.</p> <p>123. Use of school house for other purposes.</p> |
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Section 83. In the absence of any special appointment, the committee of any school district shall be the agent *ex officio* of said district.

Sec. 84. Each town shall have power to form, unite, alter, and dissolve school districts and parts of school districts within its limits¹; and any two or more towns may form school districts of adjoining portions of their respective towns; but no new district shall be so formed,² that it shall contain less than forty persons between four and sixteen years of age.^{3 4}

¹ Procedure, sec. 89.² See sec. 85.³ 54 Conn., 50.

⁴ A validating act makes not only the first meeting held under a defective warning legal, but all the subsequent proceedings so far as affected by the illegality of the first meeting. 52 Conn., 44.

G. S. sec. 2152.
Committee to
be *ex officio*
agent.

G. S. sec. 2153.
Formation and
alteration of
school districts.

Sec. 85. Wherever a school district is formed from parts of two or more towns, either of such towns shall have power to divide such district by annexing the portions lying in said town to any adjoining district therein; *provided*, the remainder of said divided district shall contain not less than forty persons between four and sixteen years of age;¹ *provided, also*, that this section shall not apply to that portion of the town of Haddam lying on the east side of the Connecticut river.

G. S. sec. 2154.
Division of districts formed from parts of two or more towns.

Proviso as to a part of Haddam.

Sec. 86. Every school district shall be a body corporate, and shall have power to sue and be sued,² to purchase, receive, hold, and convey, real and personal property for school purposes;

G. S. sec. 2155.
Powers of school districts.

To build, purchase, hire, and repair school-houses, and supply them with fuel, furniture, and other appendages and accommodations;³

To establish schools of different grades;⁴

To purchase globes, maps, blackboards, and other school apparatus;⁵

To establish and maintain a school library;⁶

To employ teachers,⁷ except for such time as the

¹ See sec. 84.

² Districts may sue by the name by which they are generally known. 13 Conn., 234.

Every inhabitant of a district is a party to any suit brought against it, and may appear and defend, and is concluded by the judgment; and his property may be taken upon any execution issued against it. 10 Conn., 395-397.

³ Secs. 115, 116, 117.

A school house is not an "out house" within the meaning of the statute as to burglarious entries of out-houses. 10 Conn., 145.

Much must be left to the discretion of a district, in determining as to the character and cost of its school-houses, and the courts will not interfere, unless in a case where such discretion has been manifestly abused. Providing a hall in the building, separate from the school-rooms, for district meetings, lectures, etc., is not necessarily improper. 25 Conn., 226-227.

⁴ School visitors have power to classify, sec. 64.

⁵ If purchased by State aid, must be approved by school visitors, sec. 149.

⁶ Chapter x.

⁷ Sec. 64, 46.

Districts have power to remove teachers as well as to appoint them. 33 Conn., 304.

town may direct the school visitors to employ the teachers,

And shall pay the wages¹ of such teachers as are employed by the district committee in conformity to law ;

To lay taxes² and borrow money for all the foregoing purposes ;

And to make all lawful agreements and regulations for establishing and conducting schools, not inconsistent with the regulations of the town having jurisdiction of the schools in such district.³

*G. S. sec. 2156.
Records of
names and
bounds.*

Sec. 87. The name, number, and limits of every school district shall be entered on its records, and on the records of the town or towns to which it belongs.⁴

*G. S. sec. 2157.
Settlement of
boundary lines.*

Sec. 88. When the boundary lines of any district are not clearly settled and defined, the selectmen of the town in which it is situated shall settle and define the same ; they shall also settle and define the boundary lines of any new district ; and when said selectmen cannot agree in settling and defining said lines, the town to which said district belongs may appoint three indifferent persons for that purpose, who shall have the same authority therein as is herein conferred upon said selectmen ; and when parts of such districts lie in two or more towns, the selectmen of the towns in which any such part is situated, or, in case of disagreement, three indifferent persons appointed by any judge of the Superior Court, on application of either town and notice to the other, shall settle and define the boundary lines of such part.

¹ Secs. 163, 164.

² A vote laying a tax need not specify the particular expenses which it is designed to meet if it can be inferred with reasonable certainty that it is imposed for legitimate purposes. 12 Conn., 439. See note 3, page 26. For method of levying taxes, see chapter xv.

³ Chapters iv and vi.

⁴ If proper officer fails to make record, he can be compelled to do it by writ of mandamus, but the omission of it does not affect the legal existence of the district. 52 Conn., 44.

In the absence of record evidence of the establishment of a school district, its legal character as such may be proved by reputation.

The district claiming the territory in question must show a definite line bounding it. 54 Conn., 74.

Sec. 89. When it is proposed to form, alter, unite, or dissolve any school district or districts, notice¹ that such change is proposed shall either be posted on the school-house in each school district to be affected, or, if there be no school-house in any of such school districts, at the usual place for posting warnings for meetings of such districts, or printed in a newspaper published in the town to which such districts or any one of them may belong; and a copy of the same shall be left with the clerk of each of said districts at least fifteen days before the town is called to act upon the proposition.

G. S. sec. 2158.
Notice of proposition to alter school districts.

Sec. 90. When application shall be made to a town to form, alter, or dissolve a school district, or to unite two or more school districts, any district aggrieved by the action or neglect of action of the town, in the premises, may appeal from such action or neglect of action to the Superior Court of the county in which such town is situated, within one year next after the action or neglect appealed from, by an application containing a brief statement, that such an appeal is taken, by whom, and from what, signed by the agent of the appellant; to which shall be annexed a citation signed by proper authority, notifying the appellees to appear at the court to which such appeal is taken; and service thereof shall be made by some proper officer by leaving a true and attested copy of such appeal and citation with the town clerk, or a selectman of such town, and with the clerk, or one of the district committee, of any other district interested, at least twelve days before the session of the court.²

G. S. sec. 2159.
Appeal to Superior Court.

Mode of appealing.

Sec. 91. Said court shall have the same powers to act upon said application that said town had, and may appoint a committee to report the facts and its opinion thereon; and the final decree of the court shall be recorded in the records of said town; and said court may allow and tax costs at its discretion, including fees for surveys, copies, and recording decree. Unless the town

G. S. sec. 2160.
Proceedings on appeals.

Effect of decree

¹ Notice need not be signed by selectmen, but one signed by one member of district in behalf of himself and others sufficient. 52 Conn. 44.

² 54 Conn., 50.

shall thereafter abolish all the school districts and parts of districts within its limits, no alteration of the lines fixed by such decree shall be made, except by the Superior Court of such county; which shall have original jurisdiction of any application for the purpose made by any district interested.

G. S. sec. 2761.
Disposition of
school property
on alteration of
districts.

Sec. 92. When any districts shall be consolidated, the new district shall own all the property of the several districts; and when a district shall be divided, its property, or the income and proceeds thereof, shall be distributed among the several parts, in proportion to the number of persons between four and sixteen years of age in each; and in case the distribution shall not be made before the district is divided, and the several parts cannot agree, the selectmen of the town, or if the district lies in two or more towns, the selectmen of the several towns, shall distribute the same.

G. S. sec. 2762.
Division of real
estate.

Sec. 93. When on any such division of a district, its only or principal property shall consist of a school-house and real estate connected therewith, which cannot be divided between the several parts of said district without great inconvenience, the selectmen of the town, instead of dividing such school-house and real estate, shall set it all to one part, and award that the other part or parts shall receive, from the part to which it is set, such sum of money as such selectmen may deem just; and such award shall be binding upon the several parts of said district.

G. S. sec. 2763.
Associations
formed under
Act of 1841.

Sec. 94. All associations under the act of 1841, allowing any two or more adjoining school districts to associate together and form a union district, entered into before the repeal of said act, shall continue to be managed and regulated according to the provisions of said act, unless the town shall abolish or consolidate all the school districts within its limits.¹

G. S. sec. 2764.
Control of dis-
tricts formed
from parts of
two or more
towns.

Sec. 95. The schools in every school district formed from parts of two or more towns, shall be under

¹ Chapter viii.

the charge and direction of the town in which the school-house is situated, unless the towns shall agree otherwise.¹

Sec. 96. Every school district shall hold an annual meeting in the month of June in each year, for the choice of officers, and for the transaction of any other business relating to schools; and shall also hold a special meeting when the same shall be duly called.²

G. S. sec. 2165.
District meetings, when held and how called.

Sec. 97. District meetings shall be held at the district school-house; but if there be no suitable school-house, the committee, if there be one, otherwise the clerk, and if there be no committee or clerk, the selectmen of the town to which said district belongs shall determine the place of meeting, which shall, in all cases, be within the district.

G. S. sec. 2166.
District meetings, where held.

Sec. 98. Notice of the time,³ place, and object of every meeting of the district shall be given at least five days previous to holding it, including the day the notice is given, but not including the day of holding said meeting. The committee, or, if there be no such committee, the clerk, or, if there be no committee or clerk, the selectmen of the town, shall give notice of a district meeting, either by publishing the same in a newspaper printed in the district, or by posting a notice on the school-house, or on the sign-post in the district, or in some other mode previously designated by the district; but if there be no such newspaper, school-house, or sign post, or other mode so designated, the selectmen of the town to which said district belongs shall determine how the notice shall be given. The person or persons giving such notice shall, on the day of giving it, leave a duplicate of it with the clerk, if any, of the district, if not, with the selectmen to be delivered to the clerk when appointed, who shall preserve it on file.⁴

G. S. sec. 2167.
Notice of meetings.

¹ Method of apportioning money, secs. 76, 170.

² Secs. 103, 146.

³ The meeting must be opened within a reasonable time after the hour specified in the warning. A delay of over an hour is not necessarily unreasonable. 13 Conn., 234.

⁴ All that is required in the notice is, that it should be so expressed that the inhabitants may fairly understand the purpose of the meeting. 13

G. S. sec. 2168.
Legal voters of
school districts.

Sec. 99. The legal voters of any school district shall consist only of the legal voters of the town or towns¹ in which said district is situated, who have resided in said school district for the period of four months next immediately preceding.

G. S. sec. 2169.
What paupers
may vote in dis-
trict meetings.

Sec. 100. No inmate of the alms-house of any town, other than the officers and employees of the town residing therein, shall be entitled to vote at any school meeting of the district wherein such alms-house is situated, unless a resident of such district at the time of his becoming such inmate.

G. S. sec. 2170.
Conduct of
school meeting,
registry list, etc.

Sec. 101. In every school district whose limits are the same as the limits of the town in which it is situated, the town registry list shall be the registry list for school purposes,² and in every other school district enumerating four hundred or more children, as returned to the Comptroller, the registrars of voters of the town in which the school-house of said district is situated shall have the same powers in reference to voting lists, appointing moderators and box-tenders of school-district meetings, as they now have in the election of town, city, or ward officers; and said registrars of voters shall, upon the written request of twenty or more legal voters of said school district, deposited with either of said registrars of voters at least twenty days before the annual meeting of said district, prepare and complete a correct list of all the legal voters of said school district, and lodge the same with the clerk of said district at least five days before said annual meeting; and in every other school district the clerk of said district shall, upon the written request of twenty or more legal voters of such district, lodged with said clerk at least twenty days before the annual meeting of said district, prepare the check list of the legal

Conn., 234. If it state the object plainly, it need not specify the mode of accomplishing it, and if there is more than one sign-post in the district, the notice may be posted on any of them. 15 Conn., 332.

¹ The legal voters consist of those upon the town registry list who have resided in district four months.

² Chapter vii.

voters of said district, to be used at any meeting for the election of officers in said district, or for the taking of any vote by ballot which may be requested by one-third of the legal voters present at any meeting of the school district; and it shall be his duty to add to said list the name of any legal voter omitted, and to erase therefrom the name of any person improperly entered thereon, and for this purpose he shall have all the powers within said district which the registrars of voters have in their respective towns.

Sec. 102. Whenever one-third of the legal voters present at any meeting of a school district having such registration shall request that any vote or votes upon any question pending before such meeting shall be taken by ballot and check-list of the legal voters of said district, the chairman of such meeting shall cause said vote or votes to be so taken, and if said vote or votes cannot be then and there conveniently and properly taken, he shall, upon the like request of said one-third of the legal voters present, adjourn said meeting to the usual polling place or places in said district, if there be any, and if there be none, then to the most suitable and convenient place or places in said district, at such time within one week thereafter as he may designate, when and where said vote or votes shall be taken between the hours of nine o'clock in the morning and five o'clock in the afternoon, and the result shall be ascertained and declared by said chairman, and recorded by the clerk upon the records of said district.

G. S. sec. 2171.
What matters
decided by bal-
lot, polling
places, etc.

Sec. 103. Upon the written request of twenty or more legal voters of any school district having such registration, to the committee to call a special meeting to vote by ballot and check-list upon any resolutions appended to such request, said committee shall call such meeting within three weeks thereafter, at some suitable time and place in such district, to be particularly stated in the call, when and where said vote or votes shall be taken, and the result ascertained, declared, and recorded in the manner provided in the preceding section. Upon like request, the committee of any school district having

G. S. sec. 2172.
Special meet-
ings.

such registration shall cause all elections of officers of such district to be had by ballot and check-list, as in this and the preceding section provided.

G. S. sec. 2173.
Compensation
for preparing
lists.

Sec. 104. The compensation of each of said registrars of voters, or of said district clerks for preparing said lists, shall be the same *per diem* as that paid by the town in which said district is situated to said registrars of voters, *per diem*, for preparing the voting lists used at State, town, city, or ward elections, and shall be paid by the treasurer of the school-district for which such list is prepared.

G. S. sec. 2174.
Choice of mod-
erator; illegal
voting in dis-
trict meeting.

Sec. 105. Every meeting may choose its own moderator,¹ and may adjourn from time to time to meet at the same or some other place in the district. Every person who shall vote illegally² in any school district meeting, shall forfeit thirty dollars to the town in which the offense is committed.

G. S. sec. 2175.
Officers, qualifi-
cations and ap-
pointment.

Sec. 106. Each school district shall choose, by ballot, at the annual meeting,³ a committee of not more than three persons,⁴ a clerk, who shall be sworn,⁵ and a treasurer and collector;⁶ who shall hold their respective offices until the next annual meeting,⁷ and until others are chosen and qualified; and any resident of the district so chosen, who shall refuse or neglect to perform the duties of the office, shall pay five dollars to said district; but any new district may choose its officers at its first, or at any subsequent meeting, called by the selectmen of the town;⁸ who shall hold their offices till the annual meeting of such district. The members of the district committee shall be residents of the district; but the other offices may be filled by any inhabitants of the town to which said district belongs.

¹ Secs. 241, 242.

² Sec. 99.

³ Sec. 96.

⁴ Sec. 146, 147.

⁵ Form of oath—"You solemnly swear that you will faithfully discharge, according to law, your duties as clerk of the district to the best of your ability; so help you God." G. S. sec. 3264.

The clerk need not take oath of office immediately after his election, or before taking minutes of the proceedings at a district meeting; provided he takes it before he performs any regular official act, such as making or sanctioning a formal record. 15 Conn., 333.

⁶ G. S. sec. 3876.

⁷ 42 Conn., 32.

⁸ Sec. 53.

Sec. 107. Any school district having by its last enumeration not less than two hundred children between four and sixteen years of age, may, at any annual meeting, due notice being inserted in the call therefor, order that its committee shall consist of three persons chosen by ballot, divided into three classes holding office for one, two, and three years, and that annually thereafter one member shall be chosen by ballot, to hold office for three years. Should any vacancy occur, the remaining members of the committee may fill it until the next annual district meeting, when all vacancies shall be filled. Whenever any district has appointed its committee as herein provided, such district may, at any special meeting called for the purpose, vote that it will no longer so appoint its committee, and thereupon the terms of office of all the members of its committee shall end at its next annual meeting, and thereafter its committee shall be appointed according to the provisions of the general law.

G. S. sec. 2176.
Appointment of
a committee of
three in districts
having two
hundred chil-
dren, etc.

Sec. 108. In all elections of officers of school districts, a majority of the votes cast shall be required to elect,¹ unless otherwise expressly provided.

G. S. sec. 2177.
Majority to
elect.

Sec. 109. The clerk of every school district shall, within thirty days after the election of officers in such district, forward to the secretary of the board of school visitors of the town wherein said school district is located, a certified list of the officers elected at such meeting, together with the post-office address of each. In case any district is situated partly in two or more towns, such list shall be sent to the secretary of the board of school visitors of each of said towns. Any clerk who shall fail to comply with the provisions of this section, shall forfeit ten dollars to the district of which he is clerk.

G. S. sec. 2178.
Certificate of
election of offi-
cers to be for-
warded to sec-
retary of board
of school visi-
tors.

Penalty.

Sec. 110. If any district, at the time for the annual meeting, shall fail to appoint all, or any of its officers; or if any vacancy shall occur by removal from the district, or otherwise, the school visitors of the town,

G. S. sec. 2179.
Vacancies how
filled.

¹ A plurality vote, taken by ballot, is insufficient to elect the committee of a school district even if they be afterwards declared elected by *viva voce* major vote. 42 Conn., 34.

to which such district belongs, shall make such appointment,¹ and fill such vacancy, on receiving written notice thereof from any three members of the district ; and shall lodge the names of such officers so appointed, with the district clerk.

G. S. sec. 2180.
Duties of officers.

Sec. 111. The clerk, treasurer, and collector, of each school district, shall exercise the same powers, and perform the same duties, in their respective districts, as the clerks, treasurers, and collectors of towns do in their respective towns.²

G. S. sec. 2181.
Bonds may be required from officers.

Sec. 112. Any district may require the treasurer and collector respectively to give bonds to the district, to the approval of the district committee, for the faithful discharge of the duties of their respective offices, before assuming such duties.

G. S. sec. 2182.
Records and papers to be open to inspection.

Sec. 113. All records³ and papers relating to or affecting the interest of any school district shall at all times be open to the inspection and examination of any person liable to pay taxes in said district.

Penalty.

Any clerk of a school district willfully concealing, refusing, or neglecting to furnish reasonable access to any such records or papers, or giving false or incorrect information as to the same, shall forfeit twenty-five dollars, one-half to the use of said district, the other half to such person as shall prosecute to effect.

G. S. sec. 2183.
Neglect of a district to open school.

Sec. 114. In case of any refusal or neglect by any district to employ a teacher and keep open a school during the usual portion of the year, the school visitors of the town having jurisdiction over such district may employ teachers, and keep open a public school in the school house of said district for the period for which the town would be obliged during that school year to maintain a school in such district;⁴ but the whole expense of any

¹ Sec. 64.

² G. S. chapter ix, page 19, town clerk.

“ x, page 21, treasurer.

“ ccxlii, page 861, collector.

³ The records of a school district are legal evidence of its proceedings in a suit to which it is a party. 13 Conn., 235.

⁴ Sec. 40.

school thus opened shall be paid by the town on the order of the selectmen, upon their receiving a certificate of the amount thereof from the school visitors. And, in any such case, the town shall be entitled to receive the same payments from the school fund and state appropriation, as if such school had been kept open by such district in the usual manner.

Sec. 115. No district shall be entitled to receive any money from the State, or town, unless it has a school house, and out-buildings, satisfactory to the board of school visitors.¹

G. S. sec. 2184.
Every district must have a school house.

Sec. 116. No new school house shall be built except according to a plan approved by the board of school visitors, and by the building committee of such district; nor at an expense exceeding the sum which the district may appropriate therefor.

G. S. sec. 2185.
Erection of school-houses.

Sec. 117. The vote of two-thirds of those present and voting at a meeting of the district shall be necessary to fix or change the site of a school-house; but if such two-thirds vote cannot be obtained in favor of any site, the school visitors of any town adjoining the town or either of the towns in which such district is, on application of the district, shall, after conferring with the school visitors of the town or towns in which such district is situated, fix the site, and make return to the town clerk of the town in which such site is to be; and shall receive a reasonable compensation for their services from said district.²

G. S. sec. 2186.
Fixing site of school-houses.

Sec. 118. Any school district may take land which has been fixed upon as a site, or addition to a site, of a school-house for a public school, and which is necessary for such purposes, and for necessary out-buildings and convenient accommodations for its schools, upon paying to the owner just compensation.³

Compensation to school visitors for fixing site.

G. S. sec. 2187.
Districts may take land for school-houses.

¹ School visitors shall inspect school house and out-buildings twice in each term. Sec. 74.

² Under this section a district cannot, without a two-thirds vote, order any term of school to be kept elsewhere than at the regular school-house, if there be one. 28 Conn., 332, 333.

³ See sec. 121.

G. S. sec. 2188.
Mode of taking
land.

Sec. 119. If such school district cannot agree with the owner upon the amount of such compensation, it may prefer its petition to the Superior Court in the county in which the land lies, or, if said court is not in session, to either judge thereof, praying that such compensation may be determined; which shall be accompanied by a summons, signed by competent authority, notifying the owner of the land to be taken, and all persons interested therein, to appear before the said court or judge, and shall be served as a writ of summons in civil actions; and, upon said petition, said court or judge shall appoint a committee of three disinterested men, who, after being sworn, and giving reasonable notice to the parties, shall examine the land proposed to be taken, and if they approve the site, they shall ascertain its value, and assess such sum in favor of the owner as will justly compensate him therefor; but if they do not approve said site, they may fix another site on land of the same owner, and proceed as aforesaid, and report their doings to said court or judge; and their report may be rejected for any irregular or improper conduct in the performance of their duties.

G. S. sec. 2189.
Owners to be
paid before land
is occupied.

Costs of court.

Sec. 120. If the report be rejected, the court or judge shall appoint another committee, who shall proceed in the same manner as the first committee were required to proceed; but if it be accepted by said court or judge, such acceptance shall have the effect of a judgment in favor of the owner of the land against the petitioner, for the amount of the assessment made by the committee, and execution may be issued therefor; and such court or judge may make any order necessary for the protection of the rights of all persons interested in the land taken; but the land shall not be used or inclosed by the district, until the amount of said judgment shall be paid to the party to whom it is due, or deposited for his use with the county treasurer. Said district shall pay the committee a reasonable compensation for their services, to be taxed by said court or judge.

Sec. 121. No school district, society, or town shall take for school purposes the land of any ecclesiastical society, upon any part of which a church building has already been erected, without the consent of such ecclesiastical society. *G. S. sec. 2190. Land of ecclesiastical society not to be taken.*

Sec. 122. Persons not residing in a school district may attend the public schools therein, if the consent of the committee of such district and of the school visitors of the town be first obtained, but not otherwise. *G. S. sec. 2191. Non-resident scholars.*

Sec. 123. Any school district or town may, by a vote of two-thirds of those present at any legal meeting, allow its school-house or houses, when not in use for school purposes, to be used for any other purpose.¹ *G. S. sec. 2192. Use of school-houses for other purposes.*

CHAPTER VIII.

Consolidation of School Districts.

[GEN. STAT. TITLE XXXV, CHAPTER CXXXVI, PAGE 477.]

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| 124. Consolidation by vote of towns. | 137. Mode of paying debts. |
| 125. Vote to be by ballot at annual meeting. | 138. Collection of taxes in favor of districts. |
| 126. School business at town meetings. | 139. Abandonment of union system, vote how taken. |
| 127. Voting list. | 140. Town to be re-imbursed for improvements. |
| 128. School committee, classification. | 141. When vote to re-establish districts takes effect. |
| 129. Powers and duties of school committees. | 142. Committee of consolidated district to be school visitors of town, on abandonment of town system. |
| 130. Property and debts of consolidated districts. | 143. Taking land for school purposes. |
| 131. Time for payment of tax extended. | 144. Payment of school expenses. |
| 132. Proceedings where there are joint districts. | 145. Distribution of school money to towns under town system. |
| 133. Permanent funds, management of. | |
| 134. School libraries. | |
| 135. Notice of abolition of part of a school district. | |
| 136. An abolished district may settle up its affairs. | |

Section 124. Any town may abolish all the school districts, and parts of school districts, within its limits, *G. S. sec. 2193. Consolidation by vote of towns.*

¹ Districts have no right against the wishes of any of their tax payers, to allow religious meetings to be regularly held in their school-houses, when the school is not in session, if it does any substantial injury to the building or its contents, or increases the danger of fire, and an injunction may be granted in such a case on the instance of any tax payer. 27 Conn., 503-508.

and assume and maintain control of the public schools therein, subject to such requirements and restrictions as are or may be imposed by the General Assembly ; and for this purpose every such town shall constitute one school district, having all the powers and duties of a school district,¹ with the exceptions hereinafter stated.

G. S. sec. 2194.
Vote to be by
ballot at annual
meeting.

Sec. 125. Whenever a vote shall be taken in any town in reference to abolishing school districts, and assuming control of the public schools therein, such vote shall be by ballot at an annual town meeting, upon notice thereof given in the warning. The selectmen shall provide a ballot box for that purpose, marked "Consolidation of Districts." Those in favor of such consolidation shall deposit in said box, a ballot, with the word "Yes" written or printed thereon, and those opposed, shall deposit a ballot with the word "No" written or printed thereon, and in towns divided into wards or voting districts for annual town meetings such a ballot box shall be provided at each of such wards or voting districts, and the ballots shall be examined, assorted, counted, and declared, in the manner provided by law.

G. S. sec. 2196.
School business
at town meet-
ings.

Sec. 126. All business relating to public schools in such towns shall be transacted at town meetings.²

G. S. sec. 2170.
Voting list.

Sec. 127. In every school district whose limits are the same as the limits of the town in which it is situated, the town registry list shall be the registry list for school purposes.³

G. S. sec. 2195.
School commit-
tee.

Sec. 128. Every such town shall elect by ballot, six, nine, or twelve residents of the town as a school committee, who shall divide themselves into three equal classes, holding office one, two, and three years, respectively, provided the control of its common schools by said town be so long continued ; and at every subsequent annual election two, three, or four members of the committee, as the case may be, shall be elected by ballot for a

Classes.

¹ Chapter xii.

² May permit school buildings to be used for other than school purposes.
Sec. 123.

³ Sec. 101.

term of three years, in the manner prescribed for the election of school visitors.¹

Sec. 129. The school committee in such town shall have in general the powers and duties of district committees,² and boards of school visitors;³

*G. S. sec. 2197.
Powers and duties of school committees.*

Shall see that good public schools of the different grades are maintained in the various parts of the town, for not less than the same length of time as would be required had no such consolidation been made;⁴

Shall appoint one or more acting visitors⁵ under their direction, to examine teachers and visit schools;

Manage the property of the town pertaining to schools;

Lodge all bonds, leases, notes, and other securities with the treasurer of said town, unless the same have been intrusted to others by the grantors, or the General Assembly;

Pay to the town treasurer all moneys which they may receive for the support of schools;

Determine the number and qualifications of the scholars to be admitted into each school;

Designate the schools which shall be attended by the children within their jurisdiction;

And may arrange with the committee of any adjacent town or district for the instruction therein of such children as may attend there more conveniently;

Shall fill any vacancies in their own number;

Shall annually, during the first two weeks of September, ascertain the expenses of maintaining the schools under their superintendence, during the year ending the thirty-first day of the previous August,⁶ and report the same, with the amount of moneys received toward the payment thereof, to the annual town meeting,

And shall, at the same time, make a full report of their doings, and the condition of the schools under their superintendence, and of all important matters concerning the same;

And shall perform all lawful acts which may be required

¹ Sec. 63.

² Chapter ix.

³ Chapter vi.

⁴ Sec. 40.

⁵ Sec. 74. May appoint acting visitor not of their own number. Sec. 75.

⁶ Sec. 3.

of them by the town, or which may be necessary to carry into effect the provisions of this title.¹

G. S. sec. 2198.
Property and
debts of consol-
idated districts.

Sec. 130. Such towns shall assume the property and be responsible for the debts of the districts within their respective limits. Such property may be appraised and the amount of the debts estimated, under the direction of the town, and the appraised value of such property shall be raised by a tax to be laid by the town on its grand list next completed; and the taxpayers in each of the districts previously existing shall be paid or credited on the rate-bill with their respective proportions of any excess of the property of such district over and above its liabilities, as ascertained by the town; or the difference in the value of the property of the several districts may be adjusted in any other manner agreed upon by the parties in interest. Permanent funds vested in any town for school purposes shall remain in charge of the school fund treasurer of the town.

G. S. sec. 2199.
1887, ch. cxix.
Time for pay-
ment of tax ex-
tended.

Sec. 131. Whenever any town shall have assumed control of and appraised the school property as provided in the preceding section, the town may, by vote in town meeting, extend the time in which the tax payers of any district or districts shall be required to pay the excess of assessment over the appraised value of the property in such district for a period not exceeding five years, and all the property belonging to the school districts over which any town has assumed or shall assume control shall be vested in such town to be held for school purposes so long as so required, and may be sold and deeded by said town when not required for school purposes.

G. S. sec. 2200.
1887, ch. cxix.
Proceedings
where there are
joint districts.

Sec. 132. Whenever any town has voted, or hereafter shall vote to assume control of all the schools, as provided in this chapter, in case there is a joint district the selectmen of the towns out of which such joint district is formed shall meet within ten days after receiving

¹ Duties as to (1) Evening schools. Secs. 71, 72.

(2) Employment of children in factories. Sec. 8.

(3) Text-books. Sec. 65. May prescribe supplementary readers. Sec. 66. May, if town direct, purchase school books for free distribution to pupils. Sec. 48.

a written request for such meeting, signed by the first selectman of either of said towns, and appraise the school-house and other school property owned and used by said joint district, and determine what proportion is owned by the inhabitants of the towns residing in said district. If the several boards of selectmen shall not agree, the same shall be determined by a judge of the superior court upon application of either of the boards of selectmen, and his decision shall be final. The proportion belonging to the tax payers of the town in which the property is not located, after deducting the indebtedness of the district, shall be paid to the treasurer of such town by the treasurer of the town in which such property is located, and the same shall be remitted to the tax payers of said town.

Sec. 133. In case any school district, formerly existing in a town in which the school districts have been or shall be abolished or consolidated, has received a permanent fund for the support of a school or schools in said district, the school fund treasurer shall have charge of it, and keep a separate account thereof; and the income of said fund shall be held subject to the order of the school committee, which shall apply it for the benefit of the school or schools within or nearest to the limits of the district formerly existing, in such manner as to carry out, as nearly as possible, the intent of the grantor of said fund.

G. S. sec. 2201.
Permanent district funds,
management of.

Sec. 134. Every such town shall be entitled to receive from the State, annually, and upon the conditions prescribed for school districts, for the purposes of school libraries, a sum not exceeding the aggregate amount which the former districts of said town might have received in like circumstances.¹

G. S. sec. 2202.
School libraries.

Sec. 135. When any part of a school district lying in two or more towns shall be abolished or consolidated by either, its selectmen shall give immediate notice thereof to the selectmen of the other town or towns, which shall thereafter provide for the schooling of the children belonging thereto, who formerly belonged to said school district.

G. S. sec. 2204.
Notice of abolition of part of a school district.

¹ Sec. 148.

G. S. sec. 2205.
An abolished
district may set-
tle up its affairs.

Sec. 136. Any school district which has been, or shall be, abolished by any town, may settle and close up its affairs; and its district committee last elected, or the selectmen of said town, may call special meetings of the district.

G. S. sec. 2206.
Mode of paying
debts.

Sec. 137. If any such district has, or shall, become liable, by judgment or otherwise, to pay any claims or demands upon it, or expenses and liabilities have been or shall be incurred by it in settling up its affairs, after consolidation, the selectmen of said town, upon the request of said district, shall pay the same and charge the amount to the district, and said amount shall be raised, by the selectmen adding the same to the tax to be laid by the said town on its grand list next completed of the taxable property of such district.

G. S. sec. 2207.
Collection of
taxes in favor of
districts.

Sec. 138. Said selectmen shall collect all taxes, claims, and demands in favor of such district, in the name of the district, and credit the same to the district, less expenses of collection.

G. S. sec. 2208.
Abandonment
of union system.

Sec. 139. Any town which has or shall have assumed the control of its public schools, as provided in this chapter, may at any annual meeting, not previous to the second annual meeting thereafter, vote to abandon such control, and reëstablish the several districts as they were before said action, which vote shall be by ballot, in the manner prescribed in section 125.

Vote how
taken.

G. S. sec. 2209.
Town to be re-
imbursed for
improvements.

Sec. 140. When any town has voted to reëstablish its school districts as provided in the preceding section, each of the districts shall pay the town for all improvements which the town has made on the school-house, its furniture, and appurtenances within the district. The amounts to be thus paid shall be determined by the selectmen and the school committee of the town. When such payments are made, the town shall restore or make good to each of the districts the school property and local funds formerly belonging to the district. If any district shall refuse or neglect to make the payment required by this section till the expiration of six months after the passage of the vote of the town to reëstablish the districts,

Amount, how
determined.

Power of select-
men in case of
non-com-
pliance.

the selectmen may cause a tax sufficient to make said payment, including the cost of laying and collecting such tax, to be laid on the district in the manner provided by law for school district taxes¹ (except that the selectmen shall perform the duties required of district committees therein), and to be collected and paid to the town.

Sec. 141. A vote to reestablish the school districts shall not take effect further than to authorize the district to hold meetings, lay and collect taxes, and appoint officers for these purposes, till all the settlements and payments required by the preceding section have been made; and unless such payments and settlements are made within one year after the passage of said vote, said vote shall be null and void.

G. S. sec. 2210.
When vote to re-establish districts takes full effect.

Sec. 142. When any town in which the school districts have been consolidated under the provisions of the acts of 1866, 1867, 1869, and 1872, has abandoned or shall abandon such system, the persons elected school committee of such union districts at the election next preceding such abandonment shall be and remain the members of the board of school visitors of such town, with all the powers and duties of school visitors, during the term of one, two, and three years for which they were or may be respectively elected, in the same manner as if elected school visitors of such town according to the statute in such case provided.

G. S. sec. 2211.
School committee of consolidated districts to be school visitors of town on abandonment of town system.

Sec. 143. Towns shall have the same powers, and be subject to the same regulations, as school districts, in taking land for school houses, out-buildings, and convenient accommodations for schools.²

G. S. sec. 2212.
Taking land for school purposes.

Sec. 144. The expenses of maintaining public schools in such towns, which shall be incurred with the approval of the school committee, shall be paid by the town, except so far as they may be met by the income from local school funds.

G. S. sec. 2203.
Payment of school expenses.

¹ Chapter xv, page 85.

² Secs. 116-120. Towns may not take land used for ecclesiastical purposes, sec. 121.

G. S. sec. 2230.
Distribution of
school money
to towns under
town system.

Sec. 145. When any town shall constitute one school district, the Comptroller shall transmit to the treasurer of such town, such proportion of the income of the school fund, and of any other money appropriated for the support of the public schools, as the number of persons between the ages of four and sixteen, residing in such town, bears to the whole number of such persons residing within the State, as ascertained by the returns made, as by law provided.¹

CHAPTER IX.

District Committees.

[GEN. STAT. TITLE XXXV, CHAPTER CXXXVII, PAGE 481].

146. Duties and powers.

147. Reports required.

G. S. sec. 2213.
Duties and
powers.

Sec. 146. The committee² of every district shall give due notice of all meetings of the district;³

May call a special meeting⁴ thereof at any time, and shall call one, on the written request of one-fifth or of ten of the legal voters in the district, stating the object for which a meeting is desired, to be held within fifteen days after such request is presented; and for any failure so to comply with such a request, they shall forfeit thirty dollars to the district.

They shall, unless otherwise directed by the district, or unless the town has directed the school visitors to employ the teachers,⁵ employ one or more qualified teachers;⁶

¹ Secs. 146, 156.

² Vacancies filled by board of school visitors, sec. 110.

Must be a resident of the district, sec. 106.

³ Sec. 98.

⁴ Secs. 96, 103, 136.

⁵ Secs. 46, 64, 114.

⁶ Committees can remove teachers when they think it for the interest of the school, but both in appointing and removing teachers they are subject to the control and direction of the district, 33 Conn., 304. They can employ teachers for a time extending beyond their own term of office, 36 Conn., 282.

Shall provide suitable school-rooms,¹

And furnish the same with fuel properly prepared ;

Visit the schools, by one or more of their number, twice at least during each term ;

Shall, when the scholars are not properly supplied with books, and their parents are too poor to furnish them, provide the same, the cost thereof to be included in the incidental expenses of the term ;

Shall suspend during pleasure, or expel from school for the term, all pupils found guilty, on full hearing, of incorrigibly bad conduct ;²

And shall give such information and assistance to the school visitors of the town, as they may require.³

Sec. 147. The committee shall give to the secretary of the board of school visitors notice of the date of the commencement and close of each school term, within one week of said commencement, and at least four weeks before the close, respectively ;

*G. S. sec. 2214,
Reports
required.*

And shall annually, on or before the fifteenth day of September, report to the school visitors, in the manner and form prescribed by the State board of education.⁴

They shall return an enumeration of the children residing in the district on the first day of January in each year, in accordance with the provisions of this title ;⁵

And the committee of every district, formed from parts of two or more towns, shall make such return to the school visitors of each of said towns, specifying the towns to which each person so enumerated belongs ;

A contract for the hiring of a teacher, made by two of three members of a district committee, is valid where the third member either authorized them beforehand or consented to it afterwards. 46 Conn., 400.

¹ Sec. 115.

When the district has a proper school-house, the committee cannot provide another school elsewhere. 28 Conn., 333.

² A member of a school committee can forcibly expel from the school-house a pupil who answers him with insolence and profanity. 41 Conn., 446.

³ To be notified of estimates and appropriations, secs. 161, 162.

⁴ Sec. 5.

⁵ Sec. 152. Time of return of enumeration, sec. 153.

and shall make returns to the secretary of the board of school visitors of the town having jurisdiction over the district of the receipts, expenditures, and statistics, in accordance with blank forms furnished by the secretary of the State board of education.¹

CHAPTER X.

School Libraries and Philosophical Apparatus.

[GEN. STAT. TITLE XXXV, CHAPTER CXXXIX, PAGE 483.]

148. When State aid may be had, etc.

| 149. Selection of books and apparatus.

G. S. sec. 2218.
When State aid
may be had.

Section 148. The Treasurer of the State, upon the order of the secretary of the State board of education,² shall pay ten dollars to every school district, and to every town maintaining a high school, which shall raise by tax or otherwise a like sum for the same purpose, to establish within such district, or for the use of such high school, a school library composed of books of reference, and other books to be used in connection with school work, and to procure maps, globes, or any proper philosophical and chemical apparatus; and the further sum of five dollars annually,³ upon a like order, to every such district or town which has raised a like sum for the current year for maintaining or replenishing such library or apparatus. And if the number of scholars in actual attendance⁴ in any such district or high school exceeds one hundred, the Treasurer shall pay ten dollars in the first instance, and five dollars annually thereafter, for every one hundred or fractional part of a hundred scholars in excess of the first

To large districts or high schools.

¹ Sec. 169.

² Account is kept by State board of education. Sec. 11.

³ The library year coincides with the calendar year.

⁴ "Actual attendance" is construed to mean the number of different scholars registered in the school year. Sec. 3.

hundred. The expense incurred by any district in accordance with the provisions of this section may be reckoned among its incidental expenses, and be defrayed in the manner provided in this title for such incidental expenses.

Expense to be reckoned among the incidental expenses of the district.

Sec. 149. The selection of all books and apparatus to be purchased shall be made or approved by the board of school visitors; which shall also prescribe the rules for their management, use, and safe keeping.¹

G. S. sec. 2219. Selection of books and apparatus.

CHAPTER XI.

Teachers.

[GEN. STAT. TITLE XXXV, CHAPTER CXL, PAGE 484.]

150. Certificate of examination required. | 151. Duties as to school register.

Section 150. No teacher shall be employed² in any school receiving any portion of its support from the public money, until he has received a certificate of approbation, signed by a majority of the board of school visitors, or by all the committee by them appointed;³ nor shall any teacher be entitled to any wages,⁴ so far as the same is paid out of any public money appropriated to

G. S. sec. 2221. Certificate of examination by school visitors.

¹ Secs. 64, 86. School visitors shall inspect library twice each term. Sec. 74.

² May be employed by (a) school visitors. Secs. 46, 64.

(b) Boards of education. Sec. 57.

(c) District committees. Sec. 146.

(d) Town committees. Sec. 129.

(e) High school committees. Sec. 43.

Teacher of music. Sec. 47.

³ May be examined by (a) State board of education. Sec. 10.

(b) School visitors. Sec. 64.

(c) Boards of education. Sec. 57.

(d) Town committee. Sec. 129.

⁴ Shall be paid once a month unless district vote otherwise. Sec. 163.

schools, unless he can produce such certificate,¹ dated previous to the opening of his school.

G. S. sec. 2223.
Teacher to keep
register.

Sec. 151. The teacher of every public school shall keep and fill out the school register provided by the State, in the manner and form required by the State board of education,² and deliver it at the close of each term to the school visitors; and no teacher shall be entitled to receive any pay unless such register shall have been so kept and filled out during the time for which any payment may be made.^{3 4}

¹ A general certificate of examination and approbation not limited to any particular district or term of school, makes the holder qualified to teach in any district of the town unless it is revoked or a re-examination required. 36 Conn., 282. Teachers may be discharged by the district or in the absence of any action by the district by the district committee, if they think it for the interest of the school. If improperly discharged against the orders of the district they will be reinstated by a writ of mandamus. 33 Conn., 304-306.

The provision as to *new certificate* if required by school visitors applies only to certificates limited as to time or qualification. 36 Conn., 282.

A school district contracting with a teacher who has an old certificate from the board of school visitors, without requiring a new one, cannot afterward repudiate the contract because he should have had a new one. *Id.*

² Sec. 5.

³ School visitors shall inspect registers twice in each term. Sec. 74.

⁴ The reasonableness of the punishment administered by a school teacher to a pupil is purely a question of fact. 53 Conn., 481.

A school teacher has a right to require obedience to reasonable rules and a proper submission to his authority, and to inflict punishment for disobedience. *Id.*

In the absence of rules established by the school board or other proper authority, the teacher has a right to make all necessary and proper rules for the regulation of the school. *Id.*

In inflicting corporal punishment the teacher must be governed, as to the mode and severity of it, by the nature of the offense, and by the age, size, and physical condition of the pupil. Where a boy has been habitually refractory and disobedient the teacher in punishing him for a particular offense may take into consideration his habitual disobedience. *Id.*

And it is not necessary that he should inform the pupil at the time that he is punishing him for his past as well as present misconduct. *Id.*

CHAPTER XII.

Support of Public Schools.¹

[GEN. STAT. TITLE XXXV, CHAPTER CXLI, PAGE 484.]

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|---|--|
| 152. Enumeration of children. | 164. Payment of teachers and certificate of school visitors. |
| 153. Form of return of enumeration. | 165. Tax in city school districts. |
| 154. Penalty for refusal to give age of child. | 166. Neglect to lay town school tax. |
| 155. Correction of returns; certificate to Comptroller. | 167. Temporary union of small school districts. |
| 156. Distribution of income of school fund and State appropriation. | 168. Extra expenses incurred by districts. |
| 157. Deduction where schools not kept according to law. | 169. Report of enumeration, etc., must be made before district is entitled to money. |
| 158. Misapplication of school moneys. | 170. Apportionment to districts formed from parts of two or more towns. |
| 159. Town deposit fund. | 171. Forfeitures may be remitted by State board. |
| 160. School society and district funds. | 172. Fraudulent certificate by school visitors. |
| 161. Meeting of visitors and selectmen as joint board. | 173. School expenses for inmates of temporary homes, how provided. |
| 162. Annual statement of estimates to town meeting. | 174. Auditing and approval of such expenses. |
| 163. Time of payment of teachers, mode of payment to teachers, etc. | |

Section 152. The committee of each school district,² or if they fail or are unable to do so, its clerk, shall, annually, in January, ascertain the name and age of every person over four and under sixteen years of age, who shall belong to such district on the first Monday of said month, and the place, year, and month when such person last attended school, together with the names of the parents, guardians, or employers of such person, and return the same to the school visitors of the town to which such district belongs,³ on or before the twentieth day of January;

G. S. sec. 2224.
Enumeration of scholars.

And in making such enumeration, children temporarily residing in one district, but having parents or guardians residing in another, shall be enumerated only as belonging to the latter district.

If such return is not made on or before said day, one

By a school
visitor.

¹ See for Towns under Union System, Sections 144, 145. Districts formed from societies, Sec. 61.

² For committee of districts formed from school societies, Sec. 57. Town committee, Sec. 129. District committee, Sec. 147.

³ If district formed from parts of two or more towns, Sec. 147.

of the school visitors shall make such enumeration before the first day of February next following, and return it to said school visitors,¹ and shall receive therefor five cents for each child so enumerated, to be paid from the amount appropriated by the town for the support of schools in said district;

Compensation.

And the committee or clerk of such district, if they shall make such enumeration, shall receive therefor one dollar and three cents in addition thereto for each child so enumerated, in excess of fifty in number, the cost of such enumeration to be paid from the amount appropriated by the town for the support of schools in said district.

G. S. sec. 225.
Form of return
of enumeration.

Sec. 153. Such return shall be signed by the person making it, and sworn to, substantially according to the following form :

I hereby certify, that I have carefully enumerated, according to law, all persons between the ages of four and sixteen years, within the ———— school district, and find that on the first Monday of January, A. D. ———, there were of such persons, residing in and belonging to said district, the number of ———— A. B.

On this ——— day of ——— A. D. ———, personally appeared the above-named A. B. and made oath to the truth of the above return by him subscribed before me. ———— *Justice of the Peace.*

G. S. sec. 226.
Penalty for
refusal to give
age of child.

Sec. 154. Any person having control of a child between four and sixteen years of age, who shall willfully refuse to give to the school committee or other person employed to make the enumeration required by this chapter, the name and age of such child and such information concerning the school attendance of such child as said chapter requires, shall be fined three dollars.

G. S. sec. 227.
Correction of
returns.

Sec. 155. The school visitors of the town shall examine and correct the returns made to them, so that no person shall be enumerated twice in different districts or be improperly returned, and lodge them, as corrected, with the town treasurer. They shall also transmit to the

¹ Sec. 76.

Comptroller,¹ on or before the fifth day of February, annually, a certificate in which the number of persons shall be inserted in words at full length, which shall be sworn to, substantially according to the following form :

Certificate to
Comptroller.

We, the school visitors of the town of ———, certify, that from the returns made to us under oath, as by law provided, we find that on the first Monday of January, A. D. ———, there were residing within the school districts belonging to said town, the number of ——— persons between four and sixteen years of age; and from the best information we can obtain, we truly believe that said number is correct.

Form of certi-
cate.

} *School Visitors.*

On this ——— day of ———, A. D. ———, personally appeared the above-named school visitors, and made oath to the truth of the above certificate, by them subscribed; before me, ——— C. D.

Sec. 156. The income of the school fund, which, after deducting all expenses attending its management, shall remain in the treasury on the twenty-eighth day of February in each year, and also one dollar and fifty cents for every person between four and sixteen years of age belonging to any school district, as ascertained from the last returns of the school visitors, shall annually, as soon as may be after said day, be divided and distributed by the Comptroller among the several towns, in proportion to the number of persons in each between the ages of four and sixteen years, as ascertained from said returns; and he shall transmit the amount distributed to each town to its treasurer, on the application of its school visitors, or of its school committee, if such town constitute but one school district; but no such money shall be transmitted to any town until the Comptroller shall have received from its school visitors or committee a certificate, signed by them or their chairman and secretary, and substantially in the following form :²

G. S. sec. 2228.
Distribution of
income of
school fund and
State appropriation.

¹ Sec. 76.

² Sec. 76.

Form of certificate to Comptroller.

We, the school visitors of the town of ———, certify, that the schools in said town have been kept for the period required by law during the year ending the thirty-first day of August last, by teachers duly examined and approved, and have been visited according to law; and that all moneys drawn from the public treasury by said town for said year, appropriated to schooling, have been faithfully applied and expended in paying for teachers' wages, and for no other purpose whatever.

Dated at ——— this ——— day of ——— A. D.

} *School Visitors.*

To the Comptroller.

G. S. sec. 2230. Deduction where schools not kept according to law.

Sec. 157. When the school in any school district shall not be kept according to law,¹ the school visitors of the town, to which such district belongs, shall, in their certificate or certificates to the Comptroller for the year following, state such fact, and also the number of children enumerated in such district; and when application is made for the school moneys payable to such town for said year, he shall deduct from the whole number of children enumerated in such town, the number contained in such district; and shall draw an order for such part only of the moneys that would otherwise go to said town, as is proportioned to the number of children in the remaining districts therein.

G. S. sec. 2231. Misapplication of school moneys.

Sec. 158. If any money appropriated to the use of schools shall be applied by a town or school district to any other purpose, such town or school district shall forfeit the amount thereof to the State; and the Comptroller shall sue for the same in behalf of the State, to be applied, when recovered, to the use of schools.

G. S. sec. 2232. Town deposit fund.

Sec. 159. The income of the town deposit fund, belonging to any town, and of any other town fund which is or shall be established or appropriated for the support

¹ Sec. 76. A district is not entitled to any State or town money unless school-house and out-buildings satisfactory to school visitors. Sec. 115.

of public schools in any town, shall be paid annually into the town treasury, for the support of public schools therein.¹

Sec. 160. The income of any fund that is or shall be established or appropriated for the support of public schools in any school district or school society existing in any town, shall be paid annually into the treasury of such district or society, for the support of public schools therein; but if such district or society shall at any time cease to exist, then the principal of said fund shall be paid over to the school fund treasurer of the town; the income thereof to be applied for the support of public schools therein, in the manner prescribed in section 133.

G. S. sec. 2232.
School society
and district
funds.

Sec. 161. The school visitors and selectmen in each town shall meet as a joint board on the second Tuesday of June in each year, and prepare a statement showing the estimated cost of each and all the public schools in their town, for the next succeeding school year,² and shall immediately thereafter notify the committees of the respective school districts of the several amounts so fixed. This section shall not apply to towns which have consolidated their school districts.

G. S. sec. 2234.
Meeting of visi-
tors and select-
men as joint
board.

Sec. 162. The school visitors and selectmen in each town shall, as a joint board, present at the annual town meeting a written or printed statement of the total cost of each and all of the public schools in such town for the school year next preceding, and an estimate of the cost of such schools for the current school year.³

G. S. sec. 2236.
Annual state-
ment of esti-
mates to town
meeting.

Said board shall also, on or before the fifteenth day of October in each year, fix the several amounts which in their judgment will be sufficient to pay the wages of teachers (including board), fuel, and the incidental expenses of maintaining the schools in the various districts within the jurisdiction of such town, for the period, during the current year, that schools are required by law, or by vote of the town, to be maintained;

Apportionment
to districts.

Expenses of
school districts
exceeding the
estimate.

And shall notify the respective districts of the several amounts so fixed;

¹ Sec. 185.

² Sec. 3.

³ Sec. 3.

And if any district, by contributing the teacher's board, or any of the incidental expenses of the school, be enabled to continue its school beyond the time required by law, said district shall, subject to the approval of the board of school visitors, be entitled to the whole amount so fixed.

G. S. sec. 2237.
Payments to
districts.

Sec. 163. Whenever any school district shall, at its annual school meeting, neglect to fix the time or period for the payment of its teachers,¹ they shall be paid at the end of each school month, and at the close of every such month or period for the payment of teachers, and on the certificate of the school visitors or acting visitor or visitors² that the schools of the district for such month or period have been kept in all respects according to law, the selectmen shall draw an order on the town treasurer in favor of such district for a sum of money sufficient, and no more than sufficient, to pay the expenses incurred by such district for said month or period for the wages of teachers (including board), fuel, and incidental expenses, if the expenses incurred by the district for the above-named purposes, during the school year,³ do not exceed the amount fixed upon for such district as provided in this chapter. But if such expenses exceed said amount, the joint board of school visitors and selectmen shall meet, within fifteen days after the close of the school year, and decide whether or not the expenditure in excess of the amount fixed upon was necessary to maintain the school or schools of the district for the time required by law. If said board shall decide that such additional expense was necessary, the selectmen shall draw an order on the town treasurer for an amount sufficient to pay the same; but if said joint board shall decide that such additional expense was not necessary, the district shall pay it, unless the town otherwise order.⁴

Expenses
exceeding the
estimate to be
passed upon by
board.

G. S. sec. 2238.
Payment of
teachers and
certificate of
school visitors.

Sec. 164. Whenever a district shall vote to pay its teacher or teachers oftener than once each term,⁵ and for fixed periods of not less than four weeks each, or when,

¹ Sec. 96.

² Sec. 74, 157.

³ Sec. 3.

⁴ Sec. 168.

⁵ Sec. 163.

as provided in the preceding section, the salary of teachers shall be payable monthly, it shall be the duty of the school visitors, or acting school visitor or visitors,¹ at the close of each of the aforesaid periods of school or school months, to give to the selectmen a certificate stating whether or not the school or schools of the district have been kept in all respects according to law during such period.

Sec. 165. No town which includes a city within its limits, shall be required to expend for school purposes in any year a greater sum than would be raised by a tax of one mill on its grand list, if said city is organized into one or more school districts, by which a sum has been appropriated for the support of public schools during the year in which such tax would be payable, sufficient, with the income derived from other sources, to pay the wages of teachers, the cost of fuel, and the incidental expenses of the public schools of said district or districts for at least thirty-six weeks of said year; provided, that said sum shall be paid, without abatement, on or before the first day of March next following the time at which the town tax shall have become due, to the several school districts in the town, in proportion to the number of children in each, at the last preceding enumeration, between the ages of four and sixteen years.

*G. S. sec. 2239.
Tax in city
school districts.*

Sec. 166. If any town shall neglect or refuse to provide for the support of its schools, according to the provisions of the three preceding sections, it shall forfeit to the State a sum equal to the amount which it was by said provisions required to raise and appropriate.

*G. S. sec. 2240.
Neglect to lay
town school
tax.*

Sec. 167. When the number of scholars in any district for any term of school shall be so small that, in the judgment of the district, the maintenance of a separate school by said district for such term is inexpedient, such district may, for such term, by vote, unite its school with the school of an adjoining district, or districts. Such union of schools shall be made only with the approval of the school visitors of the town or towns in which the

*G. S. sec. 2241.
Temporary
union of small
schools in dif-
ferent districts.*

¹ Sec. 74.

districts are situated. And if any district shall thus unite its school with that of another district or districts, it shall be as full a compliance with the law, as if it had maintained a separate school for the time required by law. Whenever the school in any district is discontinued on account of the small number¹ of its scholars, the school visitors of the town having jurisdiction over such district shall see that suitable arrangements are made whereby the children of the district may attend some adjoining school.

G. S. sec. 2242.
Extra expenses
incurred by
districts.

Sec. 168. If any district maintains a school of a higher order than is required by law, and thereby incurs increased expense for its school; or if any district shall continue its school for a longer time than is provided for at the expense of the town, according to section 40, or if any district shall expend for teachers' wages or other purposes, a sum which the school visitors and selectmen deem unnecessary and extravagant;² the cost of such school, above the sum received by such district from the town, shall be paid by a tax laid by said district. Nothing, however, in this Title is to be construed as forbidding the payment of the additional expenses of continuing any school longer than the time required by law, by voluntary contribution, or by tuition charges.

G. S. sec. 2243.
Report of enumeration, etc.,
must be made
before district is
entitled to
money.

Sec. 169. No district shall be entitled to receive any money from the State or town in any year, unless the district committee shall have made, on or before the fifteenth day of September preceding, the report required by section 147.

G. S. sec. 2244.
Apportionment
to districts
formed from
parts of two or
more towns.

Sec. 170. The income from the school fund and the amount of the annual State appropriation, apportioned to any school district formed from parts of two or more towns,³ shall be paid into the treasury of the town having jurisdiction over such district under the provisions of section 95; and the expenses of the school in such district shall be paid by said town, in the same manner and on the same conditions as if said district lay wholly within it; but during September, in each year, the school

¹ Sec. 40.

² Sec. 163.

³ Sec. 76, 95.

visitors of said town shall ascertain the cost of maintaining said school for the year ending on the thirty-first day of the preceding August;¹ not including, however, in such ascertainment, the amount received by said district from any fund that is or shall be established or granted for the support of public schools in said district; and, having deducted from this amount the sums received by the town for such district during said year from the school fund and State appropriation, shall apportion the remainder of the cost of such school among the towns in which such district lies, in proportion to the number of persons between the ages of four and sixteen years each, as ascertained by the enumeration made in the January preceding, according to the provisions of section 152, and shall before the first Monday in October, present a copy of said apportionment to the selectmen of each of said towns; and the selectmen of the town or towns not having jurisdiction over said district shall cause the sums, thus apportioned to their respective towns, to be paid to the town having jurisdiction over said district.

Sec. 171. In all cases when a school in any district has been or shall be kept during a portion of the school year, but not according to law, or when for any other cause there has been or shall be a forfeiture of moneys accruing from the school fund or annual State appropriation, that would otherwise have been paid to any town or school district, the secretary of the State board of education shall, on application from such town or school district, examine into the facts of the case, and decide according to equity, on the right of the applicants to receive the money so forfeited; and if he decides in favor of such right, and so certifies to the Comptroller, the same shall be paid as if no forfeiture had occurred.

G. S. sec. 2245.
Forfeitures
may be remitted
by State board.

Sec. 172. If any school visitor shall fraudulently make or join in making any false certificate, by reason of which money shall be drawn from the treasury of the State, he shall forfeit sixty dollars to the State.

G. S. sec. 2246.
Fraudulent cer-
tificate by
school visitors.

¹ Sec. 3.

G. S. sec. 3663.
School expenses
for inmates of
temporary
homes, how
provided.

Sec. 173. The necessary extra expense incurred by any town or school district in providing school accommodations and instruction for the inmates of any temporary homes¹ located therein shall be paid by the county as provided by law².

G. S. sec. 3664.
Auditing and
approval of
such expenses.

Sec. 174. The board of managers of temporary homes in any county shall be the judge of what are necessary extra expenses, under the preceding section, for school accommodations and instruction for inmates of temporary homes located therein, and no such expense shall be allowed or collected of such county unless it shall have been incurred with the approval of such board of managers, nor until the account of the same shall have been audited and approved by such board.

CHAPTER XIII.

Instruction in Colleges.

[GEN. STAT. TITLE XXXV, CHAPTER CXLIII, PAGE 492.]

- 175. Unauthorized credit to minor students.
- 176. Agricultural college fund.
- 177. Disposition of income.
- 178. Gratuitous instruction to certain pupils.
- 179. Annual reports.

- 180. Board of visitors.
- 181. Selection of students for gratuitous instruction.
- 182. Selection regulated.
- 183. Secretary of appointing board.

G. S. sec. 2252.
Unauthorized
credit to minor
students.

Section 175. Any person, who shall give credit to a minor student of any college or university of this State, without the written consent of his parent or guardian, or of an authorized officer of such institution, shall be fined not less than twenty nor more than three hundred dollars.

¹ Sec. 226, *et seq.*

² "To provide for the expenses of temporary homes in excess of the sum received under section 228, said board shall present annually to the county representatives and resident senators of such county an estimate of the expense of such homes for the succeeding year, and said representatives and senators may, and in case sufficient funds are not already in the treasury for such maintenance, shall at their biennial meeting, or in years in which no biennial meeting is held, at any special meeting duly called in such year, lay a county tax for the maintenance of such home or homes in their county." *G. S. sec. 3662.*

Sec. 176. The bonds of this State indorsed and known as agricultural college bonds, and constituting the capital of the agricultural college fund, shall not be transferable, except by a special act of the General Assembly, but shall remain in the custody of the commissioner of the school fund; and the Treasurer and said Commissioner are hereby authorized to invest any money now in their hands, or that hereafter may come into their hands, belonging to the principal of said fund, in any securities except personal securities in which by law the savings banks of this State may invest, and said Commissioner shall semi-annually receive and pay over the interest accruing upon said fund to the president and fellows of Yale College, for the purposes and on the conditions hereinafter set forth; and the Treasurer shall pay interest at the rate of five per cent. per annum on the principal of the Agricultural College fund remaining in the treasury uninvested.

G. S. sec. 2253.
Agricultural
College fund.

Income to be
paid to Yale
College.
1887, ch. lxxx.

Sec. 177. Said corporation shall devote the interest upon said fund wholly and exclusively to the maintenance, in that department of Yale College known as the Sheffield Scientific School, of such courses of instruction as shall carry out the intent of the act of Congress entitled "An Act donating Public Lands to the several States and Territories, for the benefit of Agriculture and the Mechanic Arts," approved July second, 1862, in the manner specially prescribed in the fourth section of said act.¹

G. S. sec. 2254.
Disposition of
income.

¹ Sec. 4. *And be it further enacted,* That all moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished, (except so far as may be provided in section fifth of this act), and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the

G. S. sec. 2255.
Gratuitous in-
struction to cer-
tain pupils.

Sec. 178. Said corporation shall furnish gratuitous education in said courses of instruction, to such citizens of this State as shall be annually nominated to be pupils of said school, in such manner as the General Assembly shall prescribe. Their number shall be, in each year, such as would expend a sum equal to half said interest, for the same year, in paying for their instruction in said school, if they were required to pay for it at the regular rates charged to its other pupils for the same year. Said pupils, so nominated and received, shall be admitted into said school upon the same terms, and subject to the same rules and discipline, which shall apply to all its other pupils, except that they shall pay nothing for their instruction.

G. S. sec. 2256.
Annual reports.

Sec. 179. Said corporation shall annually make up and distribute the reports required by the fourth paragraph of the fifth section of the act of congress¹ designated in section 177.

legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

¹ Sec. 5. *And be it further enacted,* That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States.

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings.

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid.

Sec. 180. The Governor, Lieutenant-Governor, G. S. sec. 2277. Board of visitors. the three senior senators, and the secretary of the board of education, shall constitute a board of visitors, who shall visit said school in each year, and report thereon to the General Assembly at each regular session.

Sec. 181. Said visitors, with the secretary of the Sheffield Scientific School, shall constitute an appointing G. S. sec. 2258. Selection of students for gratuitous instruction. board, who shall select from such candidates as shall offer themselves, those who shall be entitled to receive the gratuitous instruction in said school.

Sec. 182. If there are more applications for the bounty of the State than there are vacancies to be filled on the part of the State, said board shall give the preference to such young men as are fitting themselves for agricultural, mechanical, or manufacturing occupations in life, and may have become orphans through the death of a parent in the naval or military service of the United States; and next to them, to such as are most in need of pecuniary assistance; and shall provide that the appointments shall be distributed, as far as practicable, among the several counties of the State, in proportion to their population. G. S. sec. 2259. Selection regulated.

Sec. 183. The secretary of said school shall also be the secretary of said appointing board, and record G. S. sec. 2260. Secretary of appointing board.

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

Fifth. When lands shall be selected from those which have been raised to double the minimum price, in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionally diminished.

Sixth. No State while in a condition of rebellion or insurrection against the government of the United States shall be entitled to the benefit of this act.

Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its legislature within two years from the date of its approval by the President.

their transactions; and shall, at least one month before the close of each academic year in said school, cause to be published in at least one newspaper in every county in this State, an advertisement, specifying the number of pupils entitled by law to be admitted into said school for gratuitous instruction, during the ensuing academic year, and designating the time and manner in which applications for admission may be made to said appointing board.

CHAPTER XIV.

Town Deposit Fund.

[GEN. STAT. TITLE V, CHAPTER XXIII, PAGE 42.]

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| 184. To be deposited with towns. | 188. Management of the fund. |
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| 187. Treasurer's bond and report of losses to comptroller. | |

G. S. sec. 186.
To be deposited
with towns.

Section 184. The money received from the United States in pursuance of the Act of Congress approved June 23, 1836,¹ shall be or remain deposited with the several towns which have received or shall agree to receive it, on the terms hereinafter specified, in the proportion established by law; and the treasurer shall deliver it to the agents of such towns as have not received it, on receiving receipts therefor signed by such agents, and a certified copy of the vote of the town to receive its proportion of said money on the terms and conditions herein specified, and appointing an agent to receive the same.

¹ The following are the sections relating to Town Deposit Fund.

And be it further enacted, That the money which shall be in the Treasury of the United States, on the first day of January, eighteen hundred and thirty-seven, reserving the sum of five millions of dollars, shall be deposited with such of the several States, in proportion to their respective representation in the Senate and House of Representatives of the United States, as shall, by law, authorize their Treasurers, or other competent authorities to receive the

Sec. 185. The condition on which any town shall receive its share of the said money shall be, that it shall keep the money as a deposit in trust for the State, and account for the same when called for; and that, until called for, it shall appropriate the entire income thereof, annually, for the support of public schools therein.¹

*G. S. sec. 183.
Conditions of
deposits.*

*Income to go to
public schools.*

Sec. 186. The treasurer of each town, or such person as the town shall appoint, shall have the custody of said fund and be the treasurer thereof; and shall keep separate accounts relating to the fund and exhibit at each annual town meeting an account showing the amount of the fund, how invested, the amount of its income, to whom paid, for what, and the balance remaining in the treasury; which account shall be recorded and kept on file by the town clerk; and no payments shall be

*G. S. sec. 189.
Town treasurer
to have custody
of the fund, etc.*

same on the terms hereinafter specified; and the Secretary of the Treasury shall deliver the same to such Treasurers, or other competent authorities, on receiving certificates of deposit therefor, signed by such competent authorities, in such form as may be prescribed by the Secretary aforesaid; which certificates shall express the usual and legal obligations, and pledge the faith of the State, for the safe keeping and repayment thereof, and shall pledge the faith of the States receiving the same, to pay the said moneys, and every part thereof, from time to time, whenever the same shall be required, by the Secretary of the Treasury, for the purpose of defraying any wants of the public treasury, beyond the amount of the five millions aforesaid: *Provided*, That if any State declines to receive its proportion of the surplus aforesaid, on the terms before named, the same shall be deposited with the other States, agreeing to accept the same on deposit in the proportion aforesaid:

And provided further, That when said money, or any part thereof, shall be wanted by the said Secretary, to meet appropriations by law, the same shall be called for, in rateable proportions, within one year, as nearly as conveniently may be, from the different States, with which the same is deposited, and shall not be called for, in sums exceeding ten thousand dollars, from any one State, in any one month, without previous notice of thirty days, for every additional sum of twenty thousand dollars, which may at any time be required. Sec. 13.

And be it further enacted, That the said deposits shall be made with the said States in the following proportions, and at the following times, to wit: one quarter part on the first day of January, eighteen hundred and thirty-seven, or as soon thereafter as may be; one quarter part on the first day of April, one quarter part on the first day of July, and one quarter part on the first day of October, all in the same year. Sec. 14.

¹ Sec. 159.

made from the fund except on orders drawn by the agent appointed by the town, specifying whether they are to be paid from the principal or income of the fund.

G. S. sec. 190.
Treasurer's
bond.

Sec. 187. Such treasurer shall, immediately after his appointment, execute a bond to the town, with surety to the acceptance of the selectmen, for the faithful execution of his office as treasurer of the fund; and any loss or deficiency in the fund belonging to such town, and any illegal or improper management or application of its income, which shall come to his knowledge, he shall immediately report to the Comptroller and shall forfeit to the State twenty dollars for every week that he shall neglect to make such report.

To report all
losses to the
Comptroller.

G. S. sec. 191.
Management of
the fund.

Sec. 188. The town deposit fund in each town shall be managed by such agents as the town shall appoint, who shall lend it on notes payable to the town, secured by mortgage of real estate, in value double the amount of the sum loaned, and no expense shall be deducted from the principal of the fund; and when any loan shall be paid in full, the treasurer of the town where the loan was made may release the mortgaged premises; and any town may authorize its managers to invest said fund, or any part thereof, in the stock of any bank in this State, in the bonds or securities of any city, town, or borough in this State, or in the bonds, loans, or securities of this State or of the United States.

G. S. sec. 192.
Deficiency to be
made good.

Sec. 189. Each town shall make good any deficiency which may occur in said fund, and on failure to make such deficiency good within one year after it shall occur, shall forfeit to the State a sum equal to the amount thereof.

G. S. sec. 191.
Treasurer of
town deposit
fund, etc., to be
chosen by bal-
lot.

Sec. 190. Treasurers of town deposit and other town trust funds, and agents of town deposit funds, shall be voted for by ballot.

CHAPTER XV.

School District Taxes.

[GEN. STAT. TITLE LXXVI, CHAPTER CCXLIII, PAGE 869].

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| 191. To be levied on what.
192. Certain town real estate not exempt from school district taxes, when.
193. Assessment of real estate in two districts.
194. Board of relief how constituted; deductions for indebtedness.
195. Assessment of real estate omitted from grand list.
196. Of land sold since completion of grand list.
197. Mode of assessment. | 198. Taxes to be laid on preceding or succeeding year.
199. Correction of clerical error.
200. Collectors to give bonds.
201. Tax book to be open to public inspection.
202. Interest on unpaid taxes.
203. Taxes when due.
204. Additional remedy for collection of taxes.
205. Form of tax warrant. |
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Sec. 191. All taxes imposed by any school district shall be levied on the real estate situated therein, and the ratable personal property and polls of those persons who belonged to said district at the time of laying such tax, which polls shall be set in the list at one hundred dollars each, and upon any manufacturing or mechanical business, subject to taxation, which is located or carried on in said district, not including therein the value of any real estate situated out of the district, and also upon any mercantile business carried on in said district by any person or persons who do not reside in the town in which said school district is situated; and neither the business so taxed, nor any real estate in said district, shall be taxed in any other district.¹

G. S. sec. 3908.
To be levied on what.

Sec. 192. When any school district, having within its boundaries any town alms-house, and farm, shall impose any tax for the purpose of building or repairing its school-house, said real estate owned by said town shall not be exempt from such taxation.

G. S. sec. 3909.
Certain town real estate not exempt from school district taxes, when.

Sec. 193. When real estate in any district is so entered in the list of the town in common with other estate situated out of said district, that there is no distinct

G. S. sec. 3910.
Assessment of real estate in two districts.

¹ Real estate in any district is taxable there, whether the owner belongs there or not. 11 Conn., 486, 487; 4 Day, 382.—That votes imposing school taxes, if inartificially drawn, will be favorably construed, see 15 Conn., 332.

and separate value put by the assessors upon the part lying in said district, one or more of the assessors of the town in which said property is situated shall, on application of said district, value said part of said estate, and return a list of the same to the clerk of said district; and notice of such valuation and of the meeting of the assessors and selectmen hereafter mentioned, shall be given by the district committee, in the same way as a notice for district meetings.¹

G. S. sec. 3917.
Board of relief,
how con-
stituted.

Deductions for
indebtedness.

Sec. 194. At the end of ten days, after such return of said list, said assessors and selectmen shall meet in such place as said committee shall designate in such notice, and shall have the same power, in relation to such list, that the board of relief has in relation to town lists; and no deduction or abatement shall be made on account of the indebtedness of the owner of any real estate so taxed, unless both the debtor and the creditor belong to said district, and the debt is secured by a mortgage of real estate situated therein; and such list, when perfected by said assessors and selectmen shall be lodged with the town clerk; and said valuation shall be the rule of taxation for said estate, by said district, for the year ensuing; and said assessors shall be paid by said district a reasonable compensation for their services.

G. S. sec. 3912.
Assessment of
real estate omit-
ted from grand
list.

Sec. 195. When any real estate in any district has not been put into the town list, or, when any polls in any district, liable to taxation, have not been entered in said list, one or more of the assessors of the town in which such omission has occurred, on application of said district, shall value such real estate, and make a list of said polls, and add such property and polls to the list of the district.

G. S. sec. 3913.
Of land sold
since comple-
tion of grand
list.

Sec. 196. When a district lays a tax on the town list last completed, and the title to any real estate has been in any way changed between the first day of Octo-

¹ That the doings of assessors, when called out under this section, will be favorably construed, see 15 Conn., 455, 456.

"Buildings or portions of buildings exclusively occupied as colleges, academies, churches, or public school-houses or infirmaries" are exempt. Gen. Stat., p. 849, sec. 3820.

ber next preceding, and the time of laying said tax, one or more of the assessors of the town in which such change of property has occurred on application of such district, shall value said real estate in the name of the person owning it at the time of laying said tax, and deduct the same from the list of the person in whose name it stood on the town list.

Sec. 197. The assessors, in performing the duties mentioned in the two preceding sections, shall proceed in the manner prescribed for assessing real estate in section 193.

G. S. sec. 3914.
Mode of assessment.

Sec. 198. Town, society, school district, and highway taxes shall be laid either on the assessment list of the town last before or on that next thereafter completed, and be payable within one year after they are laid.

G. S. sec. 3867.
Taxes to be laid on list of preceding or succeeding year.

Sec. 199. Any clerical omission or mistake in the assessment of taxes, may be at any time corrected according to the fact, by the assessors or board of relief, and the tax shall be levied and collected according to such corrected assessment.

G. S. sec. 3869.
Correction of clerical error.

Sec. 200. Every collector of taxes shall, before he receives any such warrant, give to the community of which he is collector, a bond with surety to the acceptance of the selectmen, or committee, for the faithful discharge of his duties.

G. S. sec. 3877.
Collectors to give bonds.

Sec. 201. The tax book of any collector of town, city, borough, or school district taxes, shall be at all reasonable times open to the inspection of any taxpayer, and to any auditor of public accounts of such town, city, borough, or school district. And any collector who shall, after request, refuse to exhibit his tax-book, as aforesaid, shall forfeit the sum of one hundred dollars to the use of the treasury of such town, city, borough, or school district, and such penalty may be recovered by an action on such collector's official bond.

G. S. sec. 3878.
Tax book open to public inspection.

Sec. 202. * * If any tax laid by any town, city, borough, or school district, except the town and city of New Haven, and any school district within the limits of said town of New Haven, shall remain unpaid for one

G. S. sec. 3886.
Interest on unpaid taxes.

month, or in said town or city of New Haven, or in any school district within the limits of said town of New Haven for two months, after the same shall become due and payable, interest at the rate of nine per cent. shall be charged from the time when such tax becomes due until the same shall be paid, which shall be collectible as a part of said tax; and said collectors shall keep an accurate and separate account of all such additions, and the time when the same may be received, and shall pay over the same as a part of said tax.

G. S. sec. 3888.
1887, ch. cx.
Taxes when due.

Sec. 203. Taxes shall be deemed to become due on the first day on which the collector thereof, according to the terms of the notice given by him, is ready to receive them.

G. S. sec. 3901.
Additional remedy for collection of taxes.

Sec. 204. All taxes, properly assessed, shall become a debt due from the person, persons, or corporation, against whom they are respectively assessed, to the city, town, district, or community in whose favor they are assessed, and may be in addition to the other remedies provided by law, recovered by any proper complaint or proceeding at law, in the name of the community in whose favor they are assessed.

G. S. sec. 3907.
Form of tax warrant.

Sec. 205. Warrants for the collection of taxes may be in the following form :

To A. B., collector of taxes of the [*here insert the name of the community laying the tax*], in the county of ———, greeting :

By authority of the State of Connecticut, you are hereby commanded forthwith to collect of each person named in the annexed list, his proportion of the same, as therein stated, being a tax laid by [*name of community*], on the ——— day of ———, A. D. 18—. And you are to pay the amount of said tax, less abatements, and less taxes the lien for which has been continued by certificate, to the treasurer of said [*name of community*], on or before the ——— day of ———, A. D. 18—. And if any person fails to pay his proportion of said tax, upon demand, you are to levy upon his goods and chattels, and dispose of the same as the law directs; and after satisfying said tax and

the lawful charges, return the overplus, if any, to him; and if such goods and chattels do not come to your knowledge, you are to levy upon his real estate, and sell enough thereof to pay his tax and the costs of levy, and give to the purchaser a deed thereof, or take the body of said person and him commit unto the keeper of the jail of said county within the prison, who is hereby commanded to receive and safely keep him until he shall pay said sum, together with your fees, or be discharged in due course of law.

Dated at ———, this ——— day of ———, A. D. 18—.
A. B., *Justice of the Peace.*

CHAPTER XVI.

Reformation and Care of Children.

[GEN. STAT. TITLE LXVII, CHAPTER CCXXV, PAGE 800.]

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| <p>206. When, by whom, and for how long a boy may be committed to reform school.</p> <p>207. How long to remain.</p> <p>208. Boy may be indentured as apprentice.</p> <p>209. Cancellation of indentures.</p> <p>210. Dismissal on probation.</p> <p>211. Trustees may place boy in suitable home.</p> <p>212. Trustees still to have control of person and earnings of such boy.</p> <p>213. Penalty for enticing boy away.</p> <p style="text-align: center;">INDUSTRIAL SCHOOL FOR GIRLS.</p> <p>214. Who may be sent to it.</p> <p>215. When officers may arrest and procure commitment of girls.</p> <p>216. Costs on commitment.</p> <p>217. Discharge by directors.</p> <p>218. Age, etc., to be endorsed on mittimus.</p> <p>219. School to be guardian, etc.</p> <p style="text-align: center;">GENERAL PROVISIONS.</p> <p>220. Religious instruction in reformatory schools.</p> <p>221. Inmates of reformatory schools may be bound out as apprentices.</p> <p>222. Parent or guardian may indenture child to reformatory school.</p> <p>223. Privileges of such child.</p> <p>224. Sentence of girl may be in the alternative.</p> | <p>225. Court may make order as to children during pendency of proceedings for commitment.</p> <p style="text-align: center;">DEPENDENT AND NEGLECTED CHILDREN.</p> <p>226. Homes to be provided in each county.</p> <p>227. How managed.</p> <p>228. Children not to be retained in almshouses; expenses of support how paid.</p> <p>229. Not to be committed to jail, almshouse, or workhouse.</p> <p>230. Certain children not to be sentenced to industrial school or reform school, etc.</p> <p>231. Transfer of children from reform schools to county homes.</p> <p>232. Guardianship of such children not affected.</p> <p>233. Commitments to industrial school and temporary homes.</p> <p>234. Penalty for unlawful removal of child from temporary home.</p> <p style="text-align: center;">IMBECILE CHILDREN.</p> <p>235. Commitment of indigent imbecile children to school at Lakeville.</p> <p>236. Unlawful exhibition or employment of child under the age of twelve years.</p> <p>237. Minors not permitted in pool or billiard rooms.</p> |
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G. S. sec. 3628.
When, by
whom and for
how long a boy
may be com-
mitted to
Reform School.

Sec. 206. When any boy under the age of sixteen years shall be convicted of any crime or misdemeanor, punishable by fine or imprisonment, other than imprisonment for life, the court or justice of the peace, as the case may be, may commit him to the reform school, to remain until he shall arrive at the age of twenty-one years, unless sooner discharged by the board of trustees. And the judges of the criminal and police courts of the State, and justices of the peace, shall have power to commit to the reform school: first, any boy under sixteen years of age, who may be liable to punishment by imprisonment under any existing law of the State, or any law that may be enacted and in force in the State; second, any boy under sixteen years of age, with the consent of his parent or guardian, against whom any charge of committing any crime or misdemeanor shall have been made, the punishment of which, on conviction, would be confinement in jail or prison; third, any boy under sixteen years of age, who is destitute of a suitable home and adequate means of obtaining an honest living, or who is in danger of being brought up, or is brought up, to lead an idle or vicious life; fourth, any boy under sixteen years of age, who is incorrigible, or habitually disregards the commands of his father or mother, or guardian, who leads a vagrant life, or resorts to immoral places or practices, or neglects or refuses to perform labor suitable to his years and condition, or to attend school.

G. S. sec. 3629.
How long to
remain.

Sec. 207. Every boy sent to the reform school shall remain until he is twenty-one years of age, unless sooner discharged or bound as an apprentice; but no boy shall be retained after the superintendent shall have reported him fully reformed.

G. S. sec. 3631.
Boy may be in-
dentured or ap-
prenticed.

Sec. 208. The trustees shall have full power to place any boy committed to said school during minority, at such employment, and cause him to be instructed in such branches of useful knowledge as may be suitable to his years and capacity; and they may, with the consent

of any such boy, or his parents, or guardians, bind him out as an apprentice¹ during his minority, or for a shorter period, to learn a trade, or to other employment, as in their judgment will tend to his future benefit; and the president of the board shall, for such purpose, have power to execute and deliver, on behalf of the said board, indentures of apprenticeship for any such boy; and such indentures shall have the same force and effect as indentures of apprenticeship executed by his legal guardian, and shall be filed with the records in the office of the reform school.

Sec. 209. In case any boy so apprenticed shall prove untrustworthy and unreformed, the trustees may, at their discretion, receive such boy into the reform school, to be held in the same manner as before his said apprenticeship, and may thereupon cancel the indentures of such boy. And if, in the opinion of the trustees, any boy apprenticed by them shall have an unsuitable home, or if the person to whom such boy is indentured shall become unfit or incapable to properly raise or take care of him, the trustees may at their discretion return such boy to the school.

G. S. sec. 3632.
Cancellation of
indentures.

Sec. 210. When a boy is dismissed from the school, to his parents, or to otherwise care for himself (except by indenture, as in the preceding section), he shall be dismissed on probation merely, and the board of trustees shall have power to send for and return him to the school when, in the opinion of a majority of the members of said board, the best interests of the boy will be promoted by such return.

G. S. sec. 3633.
Dismissal on
probation.

Sec. 211. When any boy sentenced or committed to said school by any court or justice of the peace shall have improved in knowledge and behavior sufficiently, in the opinion of the trustees of said school, to qualify him for useful employment elsewhere, they shall as soon as possible place him in a suitable home, with relatives, or others, and cause him to be further instructed and regu-

G. S. sec. 3634.
Trustees may
place boy in
suitable home.

¹ Sec. 30.

larly employed in some trade or useful occupation, suited to his age and capacity, until he becomes twenty-one years of age.

G. S. sec. 3635.
Trustees still to
have control of
person and
earnings of
such boy.

Sec. 212. The trustees of said school shall have and exercise full control of the persons and earnings of boys so placed out during their minority, and shall, at least once during every period of six months, obtain by authorized visitation or inspection, definite and reliable information concerning their general deportment and progress in the occupations they are pursuing, and in general shall exercise in their behalf the care and supervision of guardians. The number and general condition of boys so placed out and cared for, shall be embraced in the annual report of the trustees of the school.

G. S. sec. 3636.
Penalty for en-
ticing boy
away.

Sec. 213. Every person who shall entice or attempt to entice away from said school, any boy legally committed to the same, or shall knowingly harbor, conceal, or aid in harboring or concealing any boy who shall have escaped from said school, shall be fined not less than ten nor more than one hundred dollars, which fine shall be paid to the treasurer of the board of trustees; and every sheriff, deputy sheriff, constable, or officer of local police, and any officer or employee of said school is authorized and directed to arrest any boy, when in his power so to do, who shall have escaped from said school, and return him thereto.

INDUSTRIAL SCHOOL FOR GIRLS.

G. S. sec. 3641.
Who may be
sent to it.

Sec. 214. The parent or guardian of any girl between the ages of eight and sixteen years, or a selectman or grand juror or other informing officer of the town where she may be found, may present a written complaint to the judge of the court of probate for the district in which such town is, or to the judge of the police court of any city sitting in chambers where she may be found, or to any justice of the peace of such town, alleging that she has committed any offense within the final jurisdiction of a justice of the peace, or belongs to

the class specified in sections 30 and 31, and section 1740 of the General Statutes,¹ or that she is leading an idle, vagrant, or vicious life, or is in manifest danger of falling into habits of vice, praying that she may be sent to the Connecticut Industrial School for girls, and such judge or justice of the peace shall thereupon, after notice to her and such other notice as he may deem proper, inquire into said complaint, and on being satisfied of the truth of the allegations therein, may order her to be committed to the guardianship and control of such school, until she shall arrive at the age of twenty-one years, unless sooner lawfully discharged, and if he finds that she has committed an offense punishable by imprisonment, other than imprisonment for life, she may be sentenced to the Connecticut Industrial School for girls, or judgment may be suspended, on such terms and for such time as he may prescribe; and said authority may issue a warrant for the execution of such sentence, but this chapter shall not be construed to deprive any girl of fourteen years of age and upward from the privilege of choosing her own guardian, with the approval of the court of probate, as provided by law.

Sec. 215. Any proper officer may arrest within his precincts any girl whom he shall judge to be between the ages of eight and sixteen years, whom he shall find in any improper place or situation, and who is in his judgment liable to be arrested for any of the offenses speci-

G. S. sec. 3642.
When officers
may arrest and
procure com-
mitment of
girls.

¹ If any person who has had relief from any town, shall suffer his children to misspend their time, and shall neglect to employ them in some honest calling, or if any person does not provide competently for his children, whereby they are exposed to want, or if any poor children, in any town, live idly or are exposed to want, and there are none to take care of them, the selectmen of such town, with the assent of a justice of the peace, shall indenture such children, to be apprentices to some proper trade for said term; and may indenture them in like manner, to any society, incorporated for the purpose of educating and relieving orphans or destitute children, whose place of business is in this State, and may contract with such society, to defray wholly or in part the expenses of such child while in the institution, to an amount not exceeding one dollar and fifty cents a week; and such society shall have the same authority, with regard to such children, as over those surrendered to them by their parents. G. S. Sec. 1740.

When select-
men may inden-
ture
apprentices.

fied in the preceding section, and make complaint and proceed in the same manner as a parent could do under the provisions of the preceding section.

G. S. sec. 3643.
Costs on commitment.

Sec. 216. The authority committing any girl to said school shall transmit a certified copy of the items of the costs on the complaint to the clerk of the superior court for the county in which the trial was had, within thirty days after the trial, and said costs shall be taxed and paid as costs are taxed and paid in criminal causes coming to the superior court from an inferior court.

G. S. sec. 3644.
Discharge by directors.

Sec. 217. The directors, or any two of them, may discharge from said school and return to her parent or guardian, or to the selectmen of the town, any girl who in their judgment ought not to be retained.

G. S. sec. 3645.
Age, etc., to be indorsed on mittimus.

Sec. 218. The authority committing any girl to said school, shall ascertain as nearly as possible, and endorse on the mittimus, her age, parentage, birth-place, offense, and such other facts relative to her, as may aid in her proper care and instruction in the school; and the age thus ascertained shall be taken as the true age of said girl with reference to the term of her commitment.

G. S. sec. 3646.
School to be guardian.

Sec. 219. In addition to the guardianship of the person, the Connecticut Industrial School for girls shall be the guardian of any estate that may be acquired by the personal services of any girl while under its guardianship and control.¹

GENERAL PROVISIONS.

G. S. sec. 3676.
Religious instruction in reformatory schools.

Sec. 220. Equal privileges shall be granted to clergymen of all religious denominations to impart religious instruction to the inmates of the schools mentioned in sections 206 to 219; and every opportunity shall be allowed such clergymen to give such inmates, belonging to their respective denominations, such religious and moral instruction as they may desire; and the trustees of each of said institutions shall prescribe reasonable times and places, not inconsistent with its proper

¹ Sec. 30.

management, when and where such instruction may be given, which shall be open to all who may choose to attend.

Sec. 221. The trustees of the State Reform School may bind out as apprentices, and the directors of the Connecticut Industrial School for girls may bind out to service, persons committed to such schools, respectively, for a term not exceeding the term of their commitment.

G. S. sec. 3677.
Inmates of re-
formatory
schools may be
bound out as
apprentices.

Sec. 222. Any parent or guardian may indenture a child or ward to the State Reform School, or to the Connecticut Industrial School for girls, on such uniform terms as may be agreed upon between such parent or guardian and the trustees or directors of said schools, the expense to be paid quarterly in advance; and in case of any failure on the part of such parent or guardian so to pay said expense, the superintendent of said State Reform School, or Connecticut Industrial School for girls, as the case may be, may sue on such agreement.

G. S. sec. 3678.
Parent or
guardian may
indenture child
to reformatory
school.

Sec. 223. Every child indentured or admitted to the State Reform School, or the Connecticut Industrial School for girls, shall be entitled to the same supervision, medical treatment, support, and education, and subject to the same regulations, employment, and restraint, as all its other inmates.

G. S. sec. 3679.
Privileges of
such child.

Sec. 224. The sentence of any girl to the Connecticut Industrial School for girls, may be in the alternative, as in the case of sentence to the State Reform School.

G. S. sec. 3680.
Sentences of
girl may be in
the alternative.

Sec. 225. When in any proceedings for the commitment of any child under sixteen years of age, to the Connecticut Industrial School for girls, or to the State Reform School, or to any temporary home for dependent and neglected children, a continuance of such cause is allowed, the court or justice of the peace, before whom such proceedings are pending, may make such order for the care and custody of such child during such continuance, and until the final disposition of the cause, as said authority shall judge to be for the welfare of said child; and the fees and expenses incurred in such commit-

G. S. sec. 3681.
1887, ch. lxxi.
Court may re-
voke order as
to children dur-
ing pendency of
proceedings for
commitment.

Expenses to be
taxed as part
of the costs.

Restriction in cases of contagious disease or where charged with crime.

ment, care, and custody shall be taxed and paid as part of the costs in said proceedings, in the same manner as in cases of commitment to said institutions. But during the adjournment of the case of any child suffering from any contagious disease, or charged with any crime or vice, such child shall not be committed to the custody of a county temporary home or of any orphan asylum.

DEPENDENT AND NEGLECTED CHILDREN.

G. S. sec. 3655.
Homes for neglected children to be provided in each county.

Sec. 226. For the better protection of children between the ages of two and sixteen years, of the classes hereinafter described, to wit: waifs, strays, children in charge of overseers of the poor, children of prisoners, drunkards, or paupers, and others who are or may hereafter be committed to hospitals, alms-houses, or work-houses, and all children within said ages, deserted, neglected, cruelly treated, or dependent, there shall be provided in each county, one or more places of refuge, to be known as temporary homes. Said homes shall be distant not less than one-half mile from any penal or pauper institution; and no pauper or convict shall be permitted to live or labor therein; and they shall not be used as a permanent provision or residence for any child, but for its temporary protection, for so long a time only as shall be absolutely necessary for the placing of the child in a well-selected family home. Children demented, idiotic, or suffering from incurable or contagious diseases, are not included in the provisions of this chapter.

G. S. sec. 3656.
How managed.

Sec. 227. In each county the county commissioners thereof, with one member of the State board of charities and one member of the State board of health, shall constitute a board for the location, organization, management, and general supervision of such temporary home or homes in the county. Said board may use, with their consent, orphan asylums now in operation in any county as temporary homes for that county; and the county commissioners may lease, purchase, hold, sell, and con-

vey real and personal estate for the purposes of such temporary home or homes; and the board may, when desirable for economical reasons, and when consistent with the welfare of the children to be provided for, establish such temporary homes in desirable private families: *provided*, that in no instance shall such home be under the same care or management as an alms-house, work-house, or penal institution. Said board may appoint such superintendents or agents, and may make such rules, regulations, and by-laws as may be necessary or convenient for the order and government of the temporary home and its officers; and they shall appoint a committee of one man or woman in each town of the county, who shall serve without compensation, and who shall have at all times the right to visit and inspect the home or homes of their county, and to suggest to said board such provisions, changes, or additions as they may think desirable; and shall assist said board in the careful selection of family homes for the children in the temporary home or homes, and in the visitation of children when placed in selected families; which visitation shall be made by said board, or by its agents, or through said committees, at least once in every three months; and said board shall remove any child from the family in which it may be placed to a temporary home, or to another family, at their discretion, subject to the intents and purposes of this chapter.

Sec. 228. It shall be unlawful for overseers of the poor to place or retain children between the ages of two and sixteen years, in alms-houses after they shall have been notified by said board that a temporary home in their county is open for the reception of such children; and upon such notice they shall cause all such children in alms-houses to be removed to such home, *provided*, that if one of the parents of such children who is a person of good moral character, shall be committed to the alms-house with and may there care for them, such children may remain with such parent in the alms-house for a period of not more than thirty days in any one year.

*G. S. sec. 3657.
Children not to
be retained or
placed in alms-
houses.*

Expenses of
support how
paid.

The necessary expenses of supporting children in temporary homes or in family homes, until they shall reach the age of twelve years for girls and fourteen for boys, shall be paid by the town committing them to the temporary home, said town so paying having a right of action upon this statute for reimbursement from the towns to which said children, if paupers, would be legally chargeable, at not less than one dollar and fifty cents nor more than two dollars weekly per child; but nothing herein shall be construed as requiring payment for the support of children in private families, when in the opinion of said board they may be placed by it in such families to its satisfaction, consistently with the best interests of the child and with the provisions and purposes of this chapter, without such payment. Overseers of the poor may place children in the temporary home for their county upon such terms, as to the time of their stay therein, as may be agreed upon by them with said board. Said board may, in its discretion, permit children to be cared for in the temporary home at the expense of private persons. The placing of children with the lowest auction bidder is hereby prohibited.

G. S. sec. 3658.
Not to be committed to jail,
alms-house or
work-house.

Sec. 229. No court or justice of the peace shall commit any child under sixteen years of age as vicious, truant, or incorrigible to any jail, alms-house, or work-house. Any court of probate, the judge of any city or police court sitting in chambers, or any justice of the peace may, upon proceedings instituted in the manner provided for the commitment of children to the industrial or reform schools of the State, or upon petition of the Connecticut humane society, or the State board of charities, commit any child belonging to the class enumerated in section 226, to any temporary home that may have been established under this chapter until such child shall be sixteen years of age, unless sooner discharged by said board of management of temporary homes; and the costs of such commitment and the expense of the support of such children, after such commitment shall be paid in the same manner as in other cases referred to in said section.

Sec. 230. No child belonging to either of the classes specified in section 226, shall be sentenced or committed by any court or justice of the peace to the State Reform School or the Connecticut Industrial School for girls, unless such child is found to have committed an offense punishable by law, or is leading an idle, vagrant, or vicious life, or the court or magistrate is of opinion that the child's previous circumstances and life have been such as to make it desirable that such child should be placed under the restraint, care, and guardianship of one of said schools.

G. S. sec. 3659.
Certain children not to be sentenced to Reform School nor Industrial School for Girls unless, etc.

Sec. 231. The directors of either of said schools may at their discretion transfer any child belonging to either of the classes specified in section 226, sentenced or committed to such school, to the county home of the county from which such child was sentenced or committed, after reasonable notice to the board of managers thereof. The superintendent of such school shall immediately notify the Comptroller of such transfer, and the expense of supporting the child in such home shall be paid by the State as provided in case of children committed to temporary homes by process of law.

G. S. sec. 3660.
Transfer of children from reform schools to county homes.

Sec. 232. Such transfer shall not divest the school from which the child is transferred of its guardianship and control over such child unless the same be relinquished by the board of directors of such school.

G. S. sec. 3661.
Guardianship of such children not affected.

Sec. 233. Courts of probate shall have concurrent jurisdiction with judges of city and police courts, and justices of the peace, in hearing and determining applications for commitments to the Connecticut Industrial School for girls, and the temporary homes for dependent and neglected children, in the manner provided by law.

G. S. sec. 488.
Commitments to Industrial School and temporary homes.

Sec. 234. Every person who shall remove or cause to be removed any child from a temporary home, or from a private home provided by the board of management of temporary homes, which child has been committed to a temporary home by a town or by any court, shall be fined not less than ten nor more than

G. S. sec. 3665.
Penalty for unlawful removal of child from temporary home.

thirty dollars, or imprisoned not more than twenty days, or both; *provided*, that children so committed may be withdrawn upon the authority of said board or of the selectmen so committing them.

IMBECILE CHILDREN.

G. S. sec. 489.
Commitment of
indigent imbecile
children to
the school at
Lakeville.

Sec. 235. Whenever there shall be found in any town in this State, any pauper or indigent imbecile child, who would be benefited by being sent to the school for imbeciles at Lakeville, the selectmen of such town shall make application to the Court of Probate for the district in which such town is situated for the admission of such child to said school, and if, upon inquiry, said court shall find that said child is a proper subject to be received into said school, it shall order said selectmen to take such child to said school, to be kept and supported for such length of time as said court may deem proper. But said selectmen shall not take or commit any such child to said school until the order of said court has been approved by the Governor, and no child shall be received at said school to be supported in any manner by the State, without the approval of the Governor. There shall be taxed by the Comptroller two dollars and fifty cents a week for each week such child shall remain at said school, and the principal of said school shall make his bill therefor quarterly, and present it to the Governor, upon whose approval it shall be paid by the State Treasurer, and the balance shall be paid by the parents or friends of said child, or, if the child is a pauper, by the town in which said child belongs.

DEAF AND DUMB AND BLIND.

[Provision is made by special acts for the education of indigent deaf-mutes in the American asylum at Hartford, and in the Whipple home school for the education of deaf-mutes, in Groton.

Provision is also made by special acts for the educa-

tion of indigent blind children in the Perkins institution and Massachusetts asylum for the blind, at Boston, Mass.

Persons desiring the benefits of these provisions must make application to the Governor of the State.]

OFFENSES AGAINST THE PERSON.

Sec. 236. Every person who shall exhibit, use, employ, apprentice, give away, let out, or otherwise dispose of any child under the age of twelve years, in or for the vocation, occupation, service or purpose of rope or wire walking, dancing, skating, bicycling, or peddling, or as a gymnast, contortionist, rider, or acrobat, in any place whatever; or for or in any obscene, indecent, or immoral purpose, exhibition, or practice, whatsoever; or for or in any business, exhibition, or vocation, injurious to the health, or dangerous to the life or limb of such child; or who shall cause, procure, or encourage any such child to engage therein, shall be fined not more than two hundred and fifty dollars, or imprisoned not less than thirty days, nor more than one year, or both. But nothing herein shall prevent the employment of any such child as a singer or musician, in any church or school, or in learning or teaching the science or practice of music.

G. S. sec. 1117.
Unlawful exhibition and employment of child under the age of 12 years.

MINORS IN POOL OR BILLIARD ROOMS.

Sec. 237. The proprietor or keeper of any public pool or billiard room, who shall permit any minor, under the age of sixteen years, to loiter in or about such room, or to play any game upon the table or tables therein, shall be fined not more than seven dollars.

G. S. sec. 2563.
Minors not to loiter or play in pool or billiard rooms.

Penalty.

CHAPTER XVII.

Miscellaneous Provisions.

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| 237. Arbor day. | 246. Penalty. |
| 238. Public buildings. | 247. Interrupting or disturbing schools or meetings. |
| 239. Warnings. | 248. Disturbance of meetings. |
| 240. Moderator ; tie vote. | 249. Obscene literature, etc. |
| 241. Power of moderator to suppress disorder. | 250. Books and periodicals devoted wholly to criminal news. |
| 242. Injury to public buildings or furniture. | 251. Public buildings to be provided with safe exits. |
| 243. Malicious injury to books, etc., in a public library. | |
| 244. Breaking and entering in the day or night season with intent to put in fear, etc. | |
| 245. Breaking and entering in the daytime with intent to commit crime. | |

G. S. sec. 1756.
Arbor Day

Section 238. The Governor shall annually, in the spring, designate by official proclamation an arbor day, to be observed in the schools and for economic tree-planting.

G. S. sec. 1.
Public buildings.

Sec. 239. In the construction of all statutes of this State, the term "public buildings" shall include * * any college, academy, school-house, or other building generally used for literary instruction.

G. S. sec. 33.
Warnings.

Sec. 240. The warning of every town meeting, annual or special, and of every meeting of a city, borough, school society, school district, or other public community, or of an ecclesiastical society, or of proprietors of common fields, shall specify the objects for which such meeting is to be held * *.¹

G. S. sec. 35.
Moderator.

Sec. 241. * * All towns when lawfully assembled for any other purpose than the election of town officers, and all societies and other communities, when lawfully assembled, shall have power to choose a moderator to preside at said meetings, unless it be otherwise specially provided by law ; and all questions arising in such meetings shall be decided by a major vote of the qualified voters present and voting, or, when there shall be an equal vote, by the moderator.

Tie vote.

¹ The objects must be intelligibly stated. 13 Conn., 234.—The general clause "and to do any other proper business" does not justify passing new by-laws. 5 Conn., 396 ; 8 Conn., 253 ; 37, 398.—Record of a meeting as "duly warned" *prima facie* evidence of such fact. 25 Conn., 563.

Sec. 242. The moderator of any town meeting, annual or special, and of any meeting of any society or other community lawfully assembled, may, when any disorder arises in the meeting, and the offender shall refuse to submit to his lawful authority, order any proper officer to take him into custody, and, if necessary, to remove him out of such meeting until he shall conform to order, or, if need be, until such meeting shall be closed, and thereupon such officer shall have power to command all necessary assistance, and any person refusing to assist when commanded shall be liable to the same penalties as for refusing to assist sheriffs and constables in the execution of their offices; but no person commanded to assist shall be deprived of his right to act in the meeting, nor shall the offender be so deprived any longer than he refuses to conform to order.

G. S. sec. 52.
Power of moderator to suppress disorder.

OFFENSES AGAINST PUBLIC PROPERTY.

Sec. 243. Every person who shall willfully injure any public building, house of public worship, college, or school-house, or who shall willfully injure or carry away any stove, stove pipe, or furniture, in and belonging to any such building, shall be fined not more than twenty dollars, or imprisoned not more than ninety days, or both.

G. S. sec. 1423.
Injuries to public buildings or furniture.

Sec. 244. Every person who shall willfully write upon, injure, or destroy any book, plate, picture, engraving, or statue, belonging to any library not exclusively owned by himself, shall be fined not less than five, nor more than five hundred dollars.

G. S. sec. 1428.
Malicious injury to books, etc., of a public library.

OFFENSES AGAINST PRIVATE PROPERTY.

Sec. 245. Every person who, in the night season, with intent to commit any crime therein, shall break and enter any building or vessel in the possession of another used as a place for the custody of property, or any building used as a place of instruction or of public worship; or,

G. S. sec. 1440.
Breaking and entering in the day or night season, with intent to put in fear, etc.

in the day-time, with like intent, shall break and enter any building or vessel in the possession of another used as a dwelling; or, in the daytime, with like intent, shall break and enter any building in the possession of another, any person therein being put in fear or dread, shall be imprisoned in the state prison not more than four years.

Sec. 246. Every person who, in the day-time, with intent to commit any crime therein, shall break and enter any building or vessel in the possession of another used as a place for the custody of property, or any building used as a place of instruction or of public worship, shall be imprisoned not more than three years.

Sec. 247. Every person who shall attempt to violate any of the provisions of the two preceding sections shall be imprisoned not more than two years.

Sec. 248. Every person who shall willfully interrupt or disturb any school, or any assembly of people met for a lawful purpose, shall be fined not more than seven dollars, or imprisoned not more than thirty days, or both.¹

OFFENSES AGAINST PUBLIC PEACE AND SAFETY.

Sec. 249. Every person who shall prevent a lawful meeting of any community from proceeding, in an orderly and peaceable manner, to the appointment of a moderator, or shall abuse him, or a presiding officer of an electors' meeting, or interrupt either in the discharge of his duty, or, after he has commanded silence, shall speak in the meeting without his liberty, except to ask reasonable liberty to speak, shall be fined not more than fifty dollars.

OFFENSES AGAINST MORALITY.

Sec. 250. Every person who shall buy, sell, advertise, lend, give, offer, or show, or have in his possession with

¹ This section includes singing schools. 26 Conn., 607.—What constitutes a school. 28 Conn., 232.

G. S. sec. 1441.
Breaking and entering in the day time with intent to commit crime.

G. S. sec. 1442.
Penalty.

G. S. sec. 1506.
Interrupting or disturbing schools or meetings.

G. S. sec. 1530.
Disturbance of meetings.

G. S. sec. 1537.
Obscene literature, etc.

intent to sell, lend, give, offer, or show, any obscene or indecent book, pamphlet, paper, picture, print, drawing, figure, image, or other engraved, printed, or written matter, or any article or instrument of indecent or immoral use or purpose, unless with intent to aid in their suppression, or in enforcing the provisions hereof, or shall design, copy, draw, photograph, print, etch, engrave, cut, carve, make, utter, publish, or otherwise prepare, or assist in preparing, anything herein named, shall be fined not more than three hundred dollars, or imprisoned in a jail not more than twelve months, or both.

Sec. 251. Every person who shall sell, lend, give, or offer, or have in his possession with intent to sell, lend, give, or offer, any book, magazine, pamphlet, or paper, devoted wholly, or principally, to the publication of criminal news, or pictures, and stories of deeds of bloodshed, lust, or crime, shall be fined not more than fifty dollars, or imprisoned not more than three months, or both.

G. S. sec. 1538.
Books and periodicals devoted wholly to criminal news.

PUBLIC HEALTH AND SAFETY.

Sec. 252. In all cities the court of common council, in all boroughs the warden and burgesses, and in all towns and parts of towns not within the limits of any city or borough, the selectmen shall require that all churches, school-houses, and all public halls that are used for lectures, amusements, exhibitions, or assemblages of people, shall be provided with ample facilities for safe and speedy entrance and exit in case of necessity, and be arranged so as to promote the comfort and safety of persons visiting them, and be closed till such requisitions are complied with; and any city, borough, or town may make suitable by-laws regarding the same.

G. S. sec. 2623.
Public buildings to be provided with safe exits.

AN ACT

INCORPORATING THE CENTER SCHOOL DISTRICT OF WATERBURY.

Private Acts, 1880, Page 12.

Resolved by this Assembly : SECTION 1. That the territorial limits of the Center School District of Waterbury shall be the following, viz : Commencing at the lower end of Mad Meadow, the same being the southwest corner of the city of Waterbury, thence northwesterly in the line of the city of Waterbury to the northeast corner of William Geddes' dwelling-house, thence northerly in said city line to Sled Hall brook, thence westerly in line of said brook to Town Plot road, thence northwesterly as the line of the Center District of Waterbury now runs, to the Middlebury road, at a point twenty rods southwest of the dwelling-house of Michael Guilfoile, thence northerly to highway forty rods north of the dwelling-house of Edward Joy, the same being the present corner of said Center District, thence in a straight line to the mouth of Steele's brook, thence northeasterly to the southwest corner of a piece of land owned by the heirs of Samuel J. Holmes, lying a little northward of the dwelling-house of Edward Moran, thence to a bridge across the Buck's Hill road, about fifty rods north of the former residence of Reuben Brown, thence to a point formerly covered by a building known as the Long Hill barn, thence southward to the highway, twenty rods north of the dwelling-house of T. and T. P. Kilbourne, thence to the Cheshire road, thirty rods east of the dwelling-house formerly owned by Elias Porter, thence in the same course to the Mad river, thence southwesterly to a swamp oak tree, thirty rods southwesterly of the dwelling-house of Lucius D. Scovill, thence to the Naugatuck river at the lower end of Mad Meadow, the place of beginning. That all the territory and the inhabitants thereof lying within the above mentioned limits be, and the same are hereby made and constituted a body politic and corporate, by the name of the Center School District, and said district shall receive its proportion of the public money ; shall have entire control of all the schools within its limits as hereinafter provided ; may establish and maintain schools of different grades, and shall also have and enjoy all the powers and privileges at present enjoyed by school districts of this State.

SEC. 2. Said district thus constituted shall hold its first meeting for election of officers on the third Monday of March, A. D. 1880, at such time and places as may be designated in the warning calling such meeting as hereinafter provided. John W. Webster, Elisha Leavenworth, T. I. Driggs, and G. S. Parsons, or any two of them, are hereby authorized and empowered to call said first meeting under this act, by posting a warning upon the public sign-post in said Waterbury, and publishing the same in the Waterbury Daily American, at least six days previous to said meeting, together with this act of incorporation, and at said meeting of such officers as are specified in the third section of this act shall be elected by a ballot and check-list, in the manner herein provided for annual meetings of said district, and the officers thus chosen shall hold their respective offices until the next annual election, and until others are chosen and qualified in their stead. At said meeting it shall be the duty of the persons acting as officers of the Center District of Waterbury to be present at the time of said meeting, at the voting place in the third voting district of Waterbury, and make full report of their doings up to the date when they shall cease to act as officers for the Center District, and shall immediately turn over to their successors in office, when elected and qualified, all books, papers, and moneys belonging to said district, which they may have in their possession.

SEC. 3. Said Center School District shall annually, on the first Monday of October, choose by ballot a district committee consisting of five persons, a board of education consisting of seven persons, a treasurer, two auditors, and a clerk ; no person shall hold more than one of said offices, and all of said officers shall be residents and legal voters of said Center School District. All persons who are registered as qualified to vote at town meetings, at the time of holding said meetings, and who live within the limits of said district, shall be qualified to vote at said meeting, as hereinafter provided. The registrars of voters in said town shall have the same powers in reference to voting lists, appointing moderators and box-tenders of the Center School District meetings, and the same shall be done in the same manner as is now by law provided for town meetings, and they shall, at least five days before the first meeting and every annual meeting of said district, prepare and complete correct lists of all the legal voters of said district, by voting districts, and lodge the same with the district clerk. At all meetings of said district for the election of officers, the boxes for the reception of ballots shall be opened at nine o'clock in the forenoon, and closed at five o'clock in the afternoon of said day. The moderator for each voting district shall cause the ballots, when counted, to be returned to the box, which shall be by him securely sealed, and shall transmit the same, together with a statement of the votes cast, and for whom, under oath to the moderator in the third voting district, who shall consolidate said returns and publicly declare the result, and shall thereupon deliver said returns and said boxes to the clerk of said district. The district committee shall provide suitable boxes for the reception of ballots in each of said voting districts.

SEC. 4. The annual meeting of said Center School District for the transaction of all business other than the election of officers shall be held on the Saturday preceding the first Monday of October, at such convenient time and place as the district committee shall designate in their notice for such meeting, which shall be published at least five days, inclusive, before said meeting ; at which said meeting said district committee, said board of education, said treasurer, and said auditors shall each make their report, the same having been published, in some newspaper printed in said Waterbury, at least three days previous thereto.

SEC. 5. No person shall vote for more than three members of said district committee. If any ballot found in said boxes shall have the names of more than three persons for members of said committee, the first three names only shall be counted, and the five persons of the whole number voted for and counted as aforesaid having the highest number of votes shall be declared elected members of the district committee of said Center School District.

SEC. 6. No person shall vote for more than four members of the board of education. If any ballot found in said boxes shall have the names of more than four persons as members of said board, the first four names only shall be counted, and the seven persons of the whole number voted for and counted as aforesaid having the highest number of votes shall be declared elected members of the board of education of said Center School District. In case of failure to elect the full number of said district committee, or of said board of education, by reason of a tie vote, the same shall be filled as hereinafter provided in case of a vacancy.

SEC. 7. No person shall vote for more than one of said auditors, and two persons having the highest number of votes shall be declared elected auditors for said Center School District.

SEC. 8. At the first meeting of said district committee, which shall be held on the Wednesday evening after their said election, in the high school room in said district, and shall be called to order by the clerk, they shall proceed to elect a chairman, by ballot, from their own number, by a majority vote of the whole committee, who shall be known as the chairman of the district committee, and shall hold the office of chairman of said committee until the next annual election, unless sooner removed from said office by said district committee : said chairman shall preside

at all meetings of said committee as hereinafter provided. Regular meetings of said district committee shall be held on the first Wednesday of each month, and of the board of education on the first Tuesday of each month, at such time and place as the clerk may designate and appoint, unless otherwise ordered by said boards; at which said meetings a majority of the members elected to said several boards shall constitute a quorum thereof, and may transact any business proper to be done and performed by said boards. Upon the application of any two members of either of said boards, in writing, to the clerk, requesting a special meeting of either of said boards, and stating the object therefor, said clerk shall serve notice of such special meeting, at least three days before the same, upon all the members of such board, stating the time, place, and object of such meeting, and no other business shall be transacted at such special meeting than that specified in such warning.

SEC. 9. Said district committee shall have the general care and management of the concerns of said district; enumerate and make return of the scholars at the time and in the manner provided by law for other school districts; employ teachers approved by the board of education; make a list of the polls and ratable estate of all the inhabitants in said district whenever it becomes necessary for the purposes of taxation; shall exercise control over the expenditures of all moneys belonging to said district; make all contracts for the furnishing of supplies, building, and repairing of school-houses, and, with the concurrence of the board of education, abate such taxes as, in their judgment, ought to be abated.

SEC. 10. At the first meeting of the board of education, which shall be held on the Tuesday evening following their said election at the high school room in said district, and shall be called to order by the clerk, they shall proceed to elect by ballot from their own number, by a majority vote of the whole board, a chairman, and one or more persons who shall be known as visitors of schools, who shall hold their said offices until the next annual election, unless sooner removed by said board. Said board of education shall have the control and management of the schools in said district; may appoint a superintendent of schools; examine, approve, and dismiss teachers; prescribe the course of study to be pursued in the different schools; make such by-laws and rules for the regulation and discipline of the schools, not inconsistent with the laws of this State, as they shall from time to time deem necessary; may dismiss from said schools any teacher or scholar who shall neglect or refuse to conform to such by-laws or rules, or for any other cause demanded for the welfare of such schools, and generally shall have the same rights and powers, and perform the same duties respecting said Center School District, as may be by law provided that school visitors of towns shall have respecting other school districts; and the board of school visitors of said town shall have no authority or jurisdiction over said Center School District or the schools therein. Said chairman shall preside at all meetings of said board, and the visitors of schools shall perform such duties as said board shall from time to time order and prescribe.

SEC. 11. The clerk of said Center School District shall be clerk of each of said boards, and attend all their meetings; he shall keep a true and correct record of all said meetings, which shall at all times be open to the inspection of any member of said boards, or any tax-payer of said Center School District.

SEC. 12. All claims and demands of every kind and nature, except salaries of teachers, against said Center School District, shall be presented to the clerk in writing, verified by the oath of the claimant or his agent, and by him presented to the auditors, who, having audited and approved of the same, shall then present the same to the district committee at its next regular meeting, and when approved by a majority of said board, the clerk shall prepare an order on the treasurer for the payment thereof, and shall keep a record of the same, which said order

shall be signed by the chairman of said board, and countersigned by the clerk, certifying that the bill for which said order is drawn has been duly audited. There shall be a pay-roll of all the teachers employed by said Center School District made each month by the clerk, and when audited by said auditors, and approved by said board, shall be paid as above provided.

SEC. 13. The treasurer shall receive and disburse all moneys belonging to said Center School District, and upon the presentation of any order to him for payment, he shall pay the same or shall duly accept said order by writing across the face thereof the word "accepted," his name and the date thereof; he shall keep a record of all orders so by him accepted, and whenever there shall be any money in his hands for the payment of any such orders, he shall advertise in some newspaper published in said Waterbury, calling upon the holder of any order therein designated by number, to present the same to him for payment, and if the same shall not be presented within ten days after such notice, then interest thereon shall thereupon cease. Said treasurer shall give bond with surety to said Center School District in the sum of twenty thousand dollars to the acceptance of said district committee.

SEC. 14. No officer of said Center School District shall receive any compensation, except the chairman of said district committee, the auditors, clerk, treasurer, and visitors of schools.

SEC. 15. Any vacancy which may occur in the board of education or the district committee during the year may be filled by each respective board by ballot, at a meeting specially called for that purpose. Any vacancy which may occur in the board of auditors, or in the office of treasurer, or clerk, must be filled by the joint ballot of the district committee and board of education, at a special meeting which shall be called by the clerk, and it shall require a majority of the members of both boards to elect.

SEC. 16. The chairman of the district committee, and clerk, shall severally give bonds with surety to said Center School District, to the acceptance of said district committee.

SEC. 17. Any member of either board may attend the meetings of the other, and may participate in the discussion of any matter belonging to the business of both boards, for the purpose of explanation, but shall not vote except in his own board.

SEC. 18. The act passed May session, A. D. 1849, incorporating the Center District of Waterbury, and all acts and parts of acts inconsistent with this act, are hereby repealed, so far as they may relate to said Center School District. But said repeal shall not affect any pecuniary obligations now attaching to said Center District, nor invalidate any lawful contract heretofore entered into, nor invalidate any tax heretofore laid and still unpaid. All just and legal debts and obligations outstanding against the Center District of Waterbury, at the time of the passage of this act, shall be assumed by the Center School District of Waterbury, hereby incorporated. And all just and legal debts, obligations, and liabilities against any person or persons, or incorporation, in favor of said Center District, at the time of the passage of this act, shall belong to said Center School District, and said Center School District may maintain an action thereon the same as if such liability had originally accrued in favor of said Center School District.

SEC. 19. This act shall take effect from its passage, and the persons acting as officers of the said Center District shall, in the administration of its affairs, conform to the provisions of this act, until the holding of the meeting on the third Monday of March, A. D. 1880, except that, before said meeting, one auditor may act, and the clerk and treasurer may be the same person.

Approved, March 4, 1880.

Mar. 2, 1887

Chap. 314.—An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto.

Agricultural
experiment sta-
tions.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges or agricultural department of colleges in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an act approved July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said act, a department to be known and designated as an "agricultural experiment station:" *Provided,* That in any State or Territory in which two such colleges have been or may be so established the appropriation hereinafter made to such State or Territory shall be equally divided between such colleges, unless the legislature of such State or Territory shall otherwise direct.

Vol. 12, p. 503.

Proviso.
Division of ap-
propriation.

Scope of re-
searches.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or territories.

Commissioner
of Agriculture
to advise, etc.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States Commissioner of Agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the governor of the State or territory in which it is located a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said Commissioner of Agriculture, and to the Secretary of the Treasury of the United States.

Reports.

Bulletins.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the States or Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the station will permit. Such bulletins or reports and the annual reports of said stations shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the Postmaster-General may from time to time prescribe.

To be post free.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of fifteen thousand dollars per annum is hereby appropriated to each State, to be specially provided for by Congress in the appropriations from year to year, and to each Territory entitled under the provisions of section eight of this act, out of any money in the Treasury proceeding from the sales of public lands, to be paid in equal quarterly payments, on the first day of January, April, July, and October in each year, to the treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, eighteen hundred and eighty-seven : *Provided, however,* That out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station ; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

Appropriations to be made from sales of public lands.

Proviso.

Buildings.

SEC. 6. That whenever it shall appear to the Secretary of the Treasury from the annual statement of receipts and expenditures of any of said stations that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

Only amount necessary to be apportioned.

SEC. 7. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the States or Territories in which they are respectively located.

Legal status not affected.

SEC. 8. That in States having colleges entitled under this section to the benefits of this act and having also agricultural experiment stations established by law separate from said colleges, such States shall be authorized to apply such benefits to experiments at stations so established by such States : and in case any State shall have established under the provisions of said act of July second aforesaid, an agricultural department or experimental station, in connection with any university, college or institution not distinctively an agricultural college or school, and such State shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the legislature of such State may apply in whole or in part the appropriation by this act made, to such separate agricultural college, or school, and no legislature shall by contract express or implied disable itself from so doing.

Application to States having experiment stations.

SEC. 9. That the grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purposes of said grants : *Provided,* That payment of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of its legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof duly certified to the Secretary of the Treasury.

Legislative assent necessary.

SEC. 10. Nothing in this act shall be held or construed as binding the United States to continue any payments from the Treasury to any or all the States or institutions mentioned in this act, but Congress may at any time amend suspend or repeal any or all the provisions of this act.

Right to suspend, etc., reserved.

Approved, March 2, 1887.

RESOLUTION CONCERNING CONGRESSIONAL APPROPRIATIONS TO
AGRICULTURAL EXPERIMENT STATIONS.

[282.]

Resolved by this Assembly: SECTION 1. That this State accepts and assents to the provisions of the act of congress, approved March second, 1887, entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several states, under the provisions of an act approved July second, 1862, and of the acts supplementary thereto."

SEC. 2. The farm attached to the Storrs Agricultural School may be used as an experimental farm for the purposes specified in the act first mentioned; and the trustees of that school and their successors in office are hereby appointed to receive and expend one-half of such moneys as may come to this State, under the provisions of said act first mentioned.

SEC. 3. The board of control of the Connecticut Agricultural Experiment Station and its successors in office is hereby appointed to receive and expend one-half of such moneys as may come to this State under the provisions of said act first mentioned.

Approved, May 18, 1887.

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Thirty-Sixth Annual Report

OF THE

BOARD OF TRUSTEES

OF THE

Connecticut State Reform School,

AT

MERIDEN,

FOR THE FISCAL YEAR ENDING JUNE 30, 1887.

TO

HIS EXCELLENCY, P. C. LOUNSBURY,

Governor of the State of Connecticut.



MERIDEN:
REPUBLICAN BOOK DEPARTMENT.

1887.

TRUSTEES OF THE STATE REFORM SCHOOL.

HON. JOHN L. HOUSTON,	THOMPSONVILLE,	HARTFORD COUNTY.
TERM EXPIRES,	.	1889.
CHARLES FABRIQUE,	NEW HAVEN,	NEW HAVEN COUNTY.
TERM EXPIRES,	.	1889.
JOHN K. BUTLER.	DARIEN,	FAIRFIELD COUNTY.
TERM EXPIRES,	.	1890.
ALBERTUS S. BRUCE,	POMFRET,	WINDHAM COUNTY.
TERM EXPIRES,	.	1890.
THEODORE BIRD,	BETHLEHEM,	LITCHFIELD COUNTY.
TERM EXPIRES,	.	1891.
CHARLES FITZGERALD,	MIDDLETOWN,	MIDDLESEX COUNTY.
TERM EXPIRES,	.	1891.
CHARLES F. SUMNER,	BOLTON,	TOLLAND COUNTY.
TERM EXPIRES,	.	1891.
J. S. LATHROP,	NORWICH,	NEW LONDON COUNTY.
TERM EXPIRES,	.	1891.

RESIDENT TRUSTEES.

COL. CHARLES L. UPHAM,	MERIDEN,	NEW HAVEN COUNTY.
TERM EXPIRES,	.	1891.
HON. ISAAC C. LEWIS,	MERIDEN,	NEW HAVEN COUNTY.
TERM EXPIRES,	.	1889.
HON. OWEN B. ARNOLD,	MERIDEN,	NEW HAVEN COUNTY.
TERM EXPIRES,	.	1891.
D. S. WILLIAMS,	MERIDEN,	NEW HAVEN COUNTY.
TERM EXPIRES,	.	1890.

OFFICERS OF THE BOARD OF TRUSTEES.

PRESIDENT.

HON. JOHN L. HOUSTON.

SECRETARY.

COL. CHARLES L. UPHAM.

EXECUTIVE COMMITTEE.

CHARLES FITZGERALD, CHARLES F. SUMNER,
COL. CHARLES L. UPHAM.

AUDITING COMMITTEE.

CHARLES FABRIQUE, HON. OWEN B. ARNOLD.

COMMITTEE ON DISCHARGES.

HON. ISAAC C. LEWIS, COL. CHARLES L. UPHAM,
HON. OWEN B. ARNOLD, GEORGE E. HOWE,
D. S. WILLIAMS.

COMMITTEE ON EDUCATION.

J. S. LATHROP, CHARLES FABRIQUE.

SANITARY COMMITTEE.

DR. C. F. SUMNER, A. S. BRUCE.

MORAL AND RELIGIOUS TRAINING.

CHARLES FITZGERALD, THEODORE BIRD.

INDUSTRIAL TRAINING.

O. B. ARNOLD, JOHN K. BUTLER,
D. S. WILLIAMS.

OFFICERS OF THE SCHOOL.

SUPERINTENDENT,
GEORGE E. HOWE.

MATRON,
MRS. F. M. HOWE.

BOOK-KEEPER,
G. WORTH HOWE.

TEACHERS IN THE CONGREGATE DEPARTMENT,
MRS. S. B. LOCKWOOD, MISS EMILY G. HURD,
MISS CARRIE BURDICK.

SUPERVISOR OF SOUTH DIVISION,
THOMAS MCGUIRE.

SUPERVISOR OF NORTH DIVISION,
F. P. OWEN.

FARMER,
F. L. KEENE.

SUPERVISOR OF FLORAL DEPARTMENT,
P. E. COPE.

NIGHT WATCHMAN,
ISSACHER CURRIER.

COTTAGE A,
SUPERVISOR—J. A. SMITH.
MATRON—MRS. J. A. SMITH.
TEACHER—MISS C. G. HALL.

COTTAGE B,
SUPERVISOR—JOHN GALLAGHER.
MATRON—MRS. JOHN GALLAGHER.
TEACHER—MRS. M. F. DAYTON.

COTTAGE C,
SUPERVISOR—JOHN PARISH.
MATRON—MISS MARY I. RAND.
TEACHER—MRS. JOHN PARISH.

State of Connecticut.

REPORT OF THE TRUSTEES OF CONNECTICUT STATE REFORM SCHOOL.

To His Excellency, P. C. LOUNSBURY, Governor of the State of Connecticut:

SIR:—In accordance with law, we herewith present the Thirty-sixth Annual Report of the Connecticut State Reform School.

From the fact that we are to report again before the convening of the next General Assembly, we shall present in this report little else than the statistical facts connected with the transactions of the School for the year just closed.

The whole number of boys received into the Institution since it was established is 4,240. The number remaining in the Institution June 30th, 1886, was 447. The number received during the year was 218, and the number discharged during the same period was 246, which leaves in the Institution at the close of the year 419 boys, being 28 less than when we last reported.

For a statement in detail of the affairs of the Institution, we respectfully refer you to the reports of the Superintendent and others which are herewith submitted.

We are highly pleased with the action of the last legislature in appropriating money for the building of two more cottages. The cottage system has proved so great a success with us, that we desire to see every boy in the School in a position to receive its benefits. When these two cottages are finished, one hundred boys can be removed from the Congregate Department. This will so reduce the number in that department that the boys remaining can be cared for in very much the same manner as the boys in the cottages.

The improvements to the Institution during the year, not only in

furnishing additional room to some of the departments, but in keeping the School buildings in a good state of repair, have met with approval from the Board.

The educational, moral and labor departments of the School have been referred to appropriate committees of the Board. The reports have been highly satisfactory, and do credit to the School. We hope at no very distant period to see some kind of trade-teaching introduced into the School that will enable a portion of the boys, at least, to learn a trade by which they may earn a living. This is a subject worthy of consideration, and we trust future legislation will provide the means by which the experiment may be tried.

We are satisfied, from careful examination, that the School was never in a better condition in all of its departments than at the present time. The manifest cleanliness of the Institution, the apparent good care of the boys as to food and clothing, the kind care they receive when sick, the careful attention given to their education and morals, the spirit of contentment among the boys, and their willingness to remain in the School till honorably discharged, all go to show that good results must follow.

Could the people of the State visit the School and become familiar with its plans and methods, any prejudice that might have before existed, we are confident would be dispelled. We feel that the School has attained a very high standard of excellence, and is worthy of the generous support given it by our commonwealth.

We take pleasure in commending and bearing testimony to the ability and efficiency with which Mr. and Mrs. Howe and their assistants in the various departments have discharged their duties, and we believe to-day that the the Meriden School is not surpassed as a reformatory.

C. L. UPHAM,
CHARLES FITZGERALD,
J. S. LATHROP,
CHARLES FABRIQUE,
CHARLES F. SUMNER,
O. B. ARNOLD,
D. S. WILLIAMS,
A. S. BRUCE,
J. K. BUTLER.

MERIDEN, CONN., Oct. 12th, 1887.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the State Reform School:

GENTLEMEN :—I herewith present my annual report of the Connecticut State Reform School for the year ending June 30th, 1887 :

The number of boys received since the establishment of the School, - - - - -	4240
Number of boys in the School at the beginning of the year, - - - - -	447
Number of boys received during the year, - - - - -	218
“ “ discharged “ “ - - - - -	246
“ “ present at the end of the year, - - - - -	419

No year in the past history of the School has been more prolific of good results in the matter of moral and physical development than the one just closed. Quiet and contentment have prevailed among the inmates of the School in an unusual degree, and the Institution is no longer looked upon by them as a place of confinement or punishment, but as a home to which at any time during their minority they may return if misfortune overtakes them. Most of the boys sent out from the School have done well, and are self-sustaining respectable citizens. We can not say this, however, of all who leave us. Some boys with weak intellects or natural criminal proclivities do not develop into a manhood that keeps them clear of influences that are ever present to lead them astray. The percentage of such boys, however, is not large. However bad a boy may prove to be after leaving the school, he seldom loses his friendship for the Institution that made the effort to save him. There are those, perhaps, who judge of the character of the Institution, by the character of the

boys who continue in evil ways after leaving it. One such boy, through the newspapers and other agencies, more thoroughly advertises the School, and is better known throughout the State, than the ninety and nine who go not astray. The good boy does not win praise so easily as the bad boy gains notoriety.

SANITARY CONDITION.

Everything possible, seemingly, has been done during the year to improve the sanitary condition of the School, still we have had some sickness, and a few boys have died. The deaths have been from hereditary consumption mostly, and confined as a rule to the colored boys of the School. The climate of this locality, together with the confinement of Institution life, does not seem adapted to the healthful growth and development of our colored population. We have had a few cases of scarlatina, and many cases of measles during the year, but all of these recovered.

LABOR.

Some changes have been made in the labor departments within the year. A law passed by the New York Legislature, requiring all goods manufactured in Reformatories and Prisons to be stamped as "convict labor," caused the New York parties for whom we were manufacturing shirts and overalls to cancel their contract. This forced us to seek other employment for the one hundred boys that had been engaged in the shirt department. Having plenty of cane seating work on hand at the time, we adopted that as an industry till more profitable employment could be found. As the result of this change, a large number of the boys of the Institution now work at cane seating chairs. The usual classes have labored at farming, gardening, fruit culture, the culture of flowers, tailoring, shoe making, etc. Small classes have also worked in the dining rooms, dormitories, kitchens, bakery, laundry and boiler house. The usual interest has been manifest in all of the labor departments, and the compensation for labor performed has been quite satisfactory. It is well known by the Board of Trustees, that many of the boys are small, and can do but little in the matter of productive manual labor. We have kept them busy, however, at something, as we consider idleness an invitation to vice, and damaging to a boy's best interests.

The boys that come to us, are usually recruits from the street loiterers and corner loafers that infest our towns and cities—those who

have never known what honest and productive labor signified. The problem of occupation, that shall exert a power that will efface the desire for vicious association and gross pleasures, is a subject worthy of our best thoughts.

SCHOOLS.

There has been no lack of interest in the educational departments of the School. The teachers have been true and faithful to their trusts, and the progress made by the boys has been highly satisfactory. All the education that most of these boys ever receive is obtained at the Reform School. We aim to prepare them well in such branches of study as will enable them to transact the ordinary business of life.

The religious and moral instruction varies but little from year to year. The chapel pulpit has been filled on the Sabbath by ministers from the several churches of the city. The Sunday school instruction is interesting and thorough.

The Catholic Priest holds Mass for the Catholic boys once in two weeks, and the Sisters of Mercy give them instruction on every alternate Sabbath.

LIBRARY.

The School is now in possession of a very good library of well selected books. Through the generous donation of \$1,100, by Hon. I. C. Lewis, the library has been substantially improved. No class of persons can be more benefitted by reading useful books than the boys under our charge, and Mr. Lewis has the heartfelt thanks of the entire School for his generous and noble gift. We hope in the near future a reading-room may be provided, to which the meritorious boys of the School may be admitted at all suitable times. This would be a feature of merit, from which great good would result.

DISCIPLINE.

The cheerful obedience of all the boys in observing the regulations and requirements of the School, has been a matter of gratification to us. The necessity for punishments of any kind has almost disappeared. The conduct of the boys in and about the Institution, and especially when alone upon the streets of Meriden, where they are frequently trusted with business from the Institution, has always been good—no complaints having ever come to us of any ungentlemanly conduct on their part. Kindness is the governing power of the In-

stitution, and as a result respectful and willing obedience to wholesome requirements, characterizes the actions of all the boys.

IMPROVEMENTS.

Many substantial and necessary repairs and improvements have been made during the year. The work of restoring to newness the older portions of the house has been carried on from year to year as the finances of the Institution would warrant the expenditures. During the past year several rooms and halls have been put in thorough repair. The large hay and cattle barn has been supplied with new sills and in other ways repaired; the three cottage buildings have been oiled on the exterior, and the buildings generally, both in and outside have received needed attention. The laundry also has been enlarged by a brick addition 24 by 26 feet. This gives additional room to the laundry, that was much needed.

NEW COTTAGES.

The contract for erecting two new cottages, (for which an appropriation was made by the Legislature at the last session), was awarded to H. Wales Lines & Co., for the stone and brick work, and G. Bloomfield for the carpenter and joiner work. The buildings are to be enclosed this year, but will not be finished until next year. Upon the completion of these cottages, we will be able to classify the School, purely as a School upon the cottage plan.

A wise economy has been exercised in all departments of the School requiring the expenditure of money. Nothing has been done in the matter of improvements, except what was necessary. In the care of the boys of the School, while nothing has been used, either for food or clothing, but articles of good quality, still great care and prudence have been exercised in all purchases made for the School. The Institution is in a healthful financial condition, as will be seen by reference to the balance sheet accompanying this report. The following tables will give statistical information of the Institution of much interest.

EXHIBIT No. 1.

CLASSIFIED STATEMENT OF EXPENDITURES AND RECEIPTS OF THE
CONNECTICUT STATE REFORM SCHOOL, FOR THE YEAR
ENDING JUNE, 30, 1887.

<i>EXPENDITURES.</i>		<i>RECEIPTS.</i>	
For Farm.	\$ 793 42	Balance on hand, July	
Miscellaneous,	539 89	1, 1886	\$ 2,404 26
Manufacturing Shop,	191 21	From Farm.	682 76
Chair Shop,	11 14	State Treasurer,	56,414 84
Chapel,	106 00	Miscellaneous,	131 08
Traveling,	294 55	Manufacturing Shop,	4,039 30
Postage,	125 02	Chair Shop,	7,343 81
Freight,	347 29	Boarders,	303 50
Returning, Escapes,	132 70	Green House,	3 00
Telephone and Tele-			
graphing,	41 92		\$71,322 55
Hospital,	668 51		
Salaries and Wages,	18,750 47		
Heating and Lights,	6,275 00		
Provisions,	16,214 28		
Stable,	1,429 16		
Repairs,	6,132 47		
House Furnishing,	1,462 11		
Clothing,	5,412 00		
Shoe Shop,	1,548 14		
Returning Boys Home,	3 54		
Library and School			
Books,	428 62		
Laundry,	808 91		
Green House,	69 85		
Stationery,	108 22		
Water Rent,	634 20		
Insurance,	120 00		
Building Account,	6 00		
Cash on Hand,	8,667 93		
	\$71,322 55		

MERIDEN, CONN, Aug. 27th, 1887.

This will certify that we have examined the accounts of George E. Howe, Esq., Superintendent of the State Reform School, for the fiscal year ending June 30, 1887, compared the vouchers therewith, and find the same correct. showing a balance of cash in the hands of the Treasurer and Superintendent, amounting to eight thousand six hundred and sixty-seven dollars and ninety-three cents (\$8,667.93).

FRANK L. RODGERS, } *Auditors of*
JOHN E. SCANLAN, } *Public Accounts.*

EXHIBIT No. 2.

SHOWING THE WHOLE NUMBER OF BOYS THAT HAVE BEEN INMATES
OF THE SCHOOL SINCE ITS OPENING IN MARCH, 1854.

Whole number since opening,	.	.	.	4240
Number in School July 1, 1886,	.	.	.	447
From Hartford County,	.	.	.	38
New Haven County,	.	.	.	47
Fairfield "	.	.	.	40
New London "	.	.	.	10
Middlesex "	.	.	.	6
Tolland "	.	.	.	1
Windham "	.	.	.	7
Litchfield "	.	.	.	13
Boarders,	.	.	.	4
Number received on old Commitment,	.	.	.	29
" returned themselves,	.	.	.	23-218
Total,				665
Discharged in various ways,	.	.	.	246
Number remaining in School July 1, 1887.	.	.	.	419

EXHIBIT No. 3.

SHOWING THE AGE OF BOYS AT COMMITMENT.

AGE.	PAST YEAR.	PREVIOUSLY.	TOTAL.
Six,	1	6	7
Seven,	7	23	30
Eight,	3	61	64
Nine,	9	136	145
Ten,	17	447	464
Eleven,	12	485	497
Twelve,	25	639	664
Thirteen,	23	645	668
Fourteen,	28	708	736
Fifteen,	27	730	757
Sixteen,	14	157	171
Seventeen,	0	22	22
Eighteen,	0	11	11
Nineteen,	0	4	4
Total,	166	4074	4240

EXHIBIT No. 4.

SHOWING FOR WHAT OFFENSE COMMITTED.

	PAST YEAR.	PREVIOUSLY.	TOTAL.
Theft,	34	1959	1993
Burglary,	13	176	189
Vagrancy,	20	237	257
Truancy,	15	615	630
Stubbornness,	0	51	51
Obtaining goods on false pretenses, 0		21	21
Arson,	0	32	32
Cruelty to animals,	0	5	5
Sabbath breaking,	0	1	1
Malicious mischief,	0	54	54
Assault,	1	121	122
Assault and battery,	1	52	53
Breach of the peace,	0	50	50
Horse stealing,	0	16	16
Disorderly conduct,	1	12	13
Robbery,	0	4	4
Trespass,	0	16	16
Manslaughter,	0	1	1
Forgers,	0	4	4
Driving horses without permission, 0		31	31
Lacivious carriage,	0	2	2
Profane cursing,	0	4	4
Getting on cars,	0	3	3
Abusive language,	0	2	2
Common drunkard,	1	11	12
Misdemeanor,	0	2	2
Fornication,	0	1	1
Breaking windows,	0	10	10
Attempt to kill,	0	1	1
Attempt to commit rape,	1	7	8
Rape,	0	3	3
Disobedience,	0	17	17
Placing obstructions on railroads, 0		4	4
Receiving stolen goods,	0	1	1
Intoxication,	0	11	11
Incorrigibility,	75	387	462
Boarders,	4	150	154
Total,	166	4074	4240

EXHIBIT No. 5.

SHOWING BY WHAT AUTHORITY COMMITTED.

	PAST YEAR.	PREVIOUSLY.	TOTAL.
Hartford Superior Court,	0	38	38
New Haven “	1	72	73
Fairfield “	0	66	66
Litchfield “	0	27	27
Middlesex “	0	10	10
Tolland “	0	14	14
New London “	0	15	15
Windham “	0	7	7
Hartford Police Court,	17	521	538
New London “	2	81	83
Norwich “	2	122	124
Waterbury “	12	138	150
New Britain “	5	131	136
Bridgeport “	11	233	244
Meriden “	8	153	161
Stamford “	2	12	14
New Haven “	18	684	702
Norwalk “	0	3	3
Middletown “	3	28	31
Danbury “	5	3	8
Derby “	5	3	8
Wallingford “	3	0	3
Justice Courts, various towns,	68	1563	1631
Boarders,	4	150	154
Total,	166	4074	4240

EXHIBIT No. 6.

SHOWING THE VARIOUS WAYS BY WHICH THE BOYS HAVE LEFT THE INSTITUTION.

	PAST YEAR.	PREVIOUSLY.	TOTAL.
Placed with Farmers,	19	419	438
Placed at various trades,	3	38	41
Sentence expired,	0	941	941
Returned to parents and friends,	201	2070	2271
Sent to Deaf and Dumb Asylum,	0	1	1

	PAST YEAR.	PREVIOUSLY.	TOTAL.
Sent to Hospital,	5	5	5
Returned to Providence Reform School, o		4	4
Discharged to go to sea,	0	2	2
Discharged to enlist in the army,	0	26	26
Discharged to Selectmen,	0	1	1
Discharged for defective mittimus,	1	19	20
Discharged by order of court,	1	14	15
Discharged by Legislature,	0	3	3
Remanded to alternate sentence,	0	33	33
Released to be tried for incendiarism,	0	2	2
Escaped and not yet returned,	8	137	145
Died,	7	53	60
Boarders dismissed,	2	147	149
Released to be tried for assault,	1	1	2
Released to be tried for burglary,	1	0	1
Sent to Children's Home,	2	0	2
Total,	246	3916	4162

EXHIBIT No. 7.

SHOWING BIRTHPLACE OF THOSE COMMITTED,

Connecticut,	133
New York,	6
Massachusetts,	5
Illinois,	1
Rhode Island,	1
New Jersey,	1
Tennessee,	1
Virginia,	1
Maryland,	2
Missouri,	1
California,	1
Cuba,	1
Ireland,	4
Germany,	5
England,	1
Sweden,	1
Russia,	1
Total,	166

EXHIBIT No. 8.

PARENTAGE OF THOSE COMMITTED.

American,	.	.	.	.	.	56
Irish, .	.	.	.	.	.	73
English,	.	.	.	.	.	6
German,	.	.	.	.	.	15
French,	.	.	.	.	.	2
Swede,	.	.	.	.	.	1
Russian,	.	.	.	.	.	1
Colored,	.	.	.	.	.	12
Total,						<hr/> 166

FARMER'S REPORT.

To the Honorable Board of Trustees:

The following tables show the amount of all farm products for the year ending June 30, 1887; also the amount of same on hand, the inventory of stock and tools on the farm.

All of which is respectfully submitted,

F. L. KEENE, *Farmer.*

25 Tons of English hay,	@ \$20 00	\$500 00
12 " Clover hay,	15 00	180 00
12 " Hungarian hay,	15 00	180 00
8 " Swamp hay,	10 00	80 00
9 " Corn fodder,	8 00	72 00
6 " Rye straw,	16 00	96 00
5 " Oat straw,	12 00	60 00
145 Bushels of Rye,	62	89 90
252½ " Oats,	45	113 62½
1187 " Potatoes,	75	890 25
150 " Egg Turnips,	40	60 00
350 " Stone Turnips,	40	140 00
152 " Cattle Beets,	25	38 00
307 " Table Beets,	50	153 50
160 " Parsnips,	75	120 00
256 " Carrots,	50	128 00
375 " Onions,	75	281 25
75 Barrels Apples,	1 50	112 50
4300 doz. Sweet Corn,	12	516 00
90 Bushels Peas,	1 25	112 50

20	"	String Beans,	@ \$	50	\$	10 00
87	"	Lima Beans,		75		65 25
40	"	Summer Squash,		50		20 00
1000	Pounds	Hubbard Squash,		02		20 00
400	"	Boston Marrow Squash,		02		8 00
600	"	Turban Squash,		02		12 00
250	"	Perfect Gem Squash,		03		7 50
92	Bushels	Cucumbers,		50		46 00
1300		Cabbages,		06		780 00
231	Bushels	Tomatoes,		50		115 50
500	lbs.	Pie Plant,		03		15 00
2000	Heads	Lettuce,		01		20 00
1801	Quarts	Raspberries,		10		180 10
761	"	Strawberries,		12		91 32
2902	"	Currants,		08		232 16
273	"	Blackberries,		10		27 30
32571	"	Milk,		07		2279 97
		Broom Brush,				35 00
1200	lbs.	Beef, live weight,		04		48 00
10	Calves,			1 00		10 00
4027	lbs.	Pork,		07		281 89
185	lbs.	Leaf Lard,		14		25 90
33	Pigs,			2 50		82 50
7	Shoats,			12 00		84 00
8	Tons	hayed Rye,		10 00		80 00
Total,						\$8,500 91½

INVENTORY OF FARM STOCK.

	Pair of Working Oxen,	\$200 00
12	Cows,	720 00
2	Heifers, (2 years old),	80 00
2	" (1 year old),	36 00
7	Shoats,	84 00
6	Store Hogs,	108 00
19	Pigs,	38 00
5	Horses,	1,000 00
Total,		\$2,266 00

FARM, TOOLS, CARRIAGES, ETC.

1 Ox cart,	.	.	.	.	\$ 35 00
1 Hay cart,	.	.	.	.	20 00
1 Improved Buckeye mower,	.	.	.	.	30 00
1 Iron roller,	.	.	.	.	20 00
5 Wheelbarrows,	.	.	.	.	15 00
1 Ox sled,	.	.	.	.	12 00
1 Horse sled,	.	.	.	.	12 00
1 Swivel plow,	.	.	.	.	7 00
3 Landside plows,	.	.	.	.	30 00
2 Cultivators,	.	.	.	.	12 00
1 Ox shovel,	.	.	.	.	4 00
1 Ox scraper,	.	.	.	.	3 00
2 Seed drills,	.	.	.	.	8 00
20 Hay rakes,	.	.	.	.	5 00
8 Hay forks,	.	.	.	.	3 00
12 Manure forks,	.	.	.	.	6 00
30 Shovels,	.	.	.	.	15 00
4 Spading forks,	.	.	.	.	2 00
12 Spades,	.	.	.	.	7 00
1 Root cutter,	.	.	.	.	10 00
1 Horse rake,	.	.	.	.	30 00
4 Yokes,	.	.	.	.	8 00
4 Chains,	.	.	.	.	5 00
1 Wheel hoe,	.	.	.	.	4 00
1 Drill marker,	.	.	.	.	5 00
1 Potato digger,	.	.	.	.	10 00
8 Picks,	.	.	.	.	8 00
6 Hand lawn mower,	.	.	.	.	36 00
1 Horse lawn mower,	.	.	.	.	60 00
2 Platform scales,	.	.	.	.	20 00
10 Axes,	.	.	.	.	7 50
60 Hoes,	.	.	.	.	15 00
2 Crowbars,	.	.	.	.	3 00
10 Baskets,	.	.	.	.	5 00
1 Set of dry measures,	.	.	.	.	1 75
10 Boxes,	.	.	.	.	8 00
4 Scythes and snaths,	.	.	.	.	8 00
15 Pails,	.	.	.	.	2 25

1	Stone boat,	.	.	.	.	\$	3 00
	Joiner's Tools,	.	.	.	.		10 00
1	Top buggy,	.	.	.	.		225 00
1	Phaeton,	.	.	.	.		50 00
1	Three-seated carryall,	.	.	.	.		200 00
1	Two-seated carriage,	.	.	.	.		175 00
1	Express wagon,	.	.	.	.		20 00
1	Express wagon,	.	.	.	.		85 00
1	Heavy chair wagon,	.	.	.	.		250 00
1	Lumber wagon,	.	.	.	.		50 00
1	Chair sleigh,	.	.	.	.		30 00
1	Two-seated sleigh,	.	.	.	.		30 00
1	Business sleigh,	.	.	.	.		12 00
1	Portland cutter,	.	.	.	.		15 00
3	Strings sleigh bells,	.	.	.	.		6 00
	Robes, blankets, etc.,	.	.	.	.		30 00
4	Single harness,	.	.	.	.		60 00
1	set light harness,	.	.	.	.		40 00
2	set double harness,	.	.	.	.		50 00
Total,							<hr/> \$1,833 50

INVENTORY OF FARM PRODUCTS ON HAND JUNE 30, 1887.

4	Tons Hungarian hay,	@ \$15 00	\$ 60 00
4	" Swamp hay,	10 00	40 00
4	" Rye straw,		64 00
3	" Oat straw,		36 00
8	" hayed rye,		80 00
Total,			<hr/> \$280 00

THE FOLLOWING TABLE SHOWS THE AMOUNT AND VALUE OF VEGETABLES USED IN THE INSTITUTION FOR THE YEAR
ENDING JUNE 30, 1887.

1370	Bushels of Potatoes,	@ \$ 75	\$1027 50
220	" Beets,	50	110 00
155	" Turnips,	40	62 00
325	" Onions,	75	243 75
70	" Parsnips,	75	52 50
60	" Peas,	1 25	75 00

27 Bushels of String Beans,	@ \$ 50	\$ 13 50
75 Barrels of Apples,	1 50	112 50
1051 Quarts Strawberries,	10	105 10
2992 " Currants,	08	239 36
1941 " Raspberries,	10	194 10
272 " Blackberries,	10	27 20
32571 " Milk,	07	2279 97
8224 Cabbages,	06	444 93
4840 doz. Sweet Corn,	12	580 80
1700 lbs. Squash,	02	34 00
40 Bushel Cucumbers,	50	20 00
78 " Lima Beans,	75	58 50
180 " Tomatoes,	50	90 00
1400 Heads of Lettuce,	02	28 00
800 Bunches of Radishes,	03	24 00
Total,		<hr/> \$5,871 22

SCHOOL REPORT.

Number of boys under instruction July 1, 1886,	447
Number received during the year,	218
Whole number under instruction during the year,	665
Number discharged during the year,	246
Present number under instruction,	419

The scholarship of the boys when received is shown by the following statements :

READING.

Who did not know the alphabet,	43
Who could read in first reader,	60
Who could read in second reader,	139
Who could read in third reader,	124
Who could read in fourth reader,	63
	419

WRITING.

Who could not write at all,	142
Who could write easy words,	127
Who could write letters to friends,	150
	419

ARITHMETIC.

Who knew nothing of arithmetic,	150
Who had studied mental arithmetic,	140
Who ciphered through simple rules,	129
	419

GEOGRAPHY.

Who had never studied geography,	282
Who had studied geography,	137

 419

The following statements show the proficiency of the boys in the several branches taught in the school :

Who read in fourth reader,	135
Who read in third reader,	128
Who read in second reader,	69
Who read in first reader,	87

 419

WRITING.

Who can write letters to friends,	342
Who can write easy words,	15
Who can print reading lessons,	62

 419

ARITHMETIC.

Who have studied in denominate numbers,	36
Who have studied in common fractions,	66
Who have studied in properties of numbers,	20
Who have studied in simple rules,	276
Who have studied in mental arithmetic,	21

 419

GEOGRAPHY.

Who have studied Swinton's complete geography, . .	120
Who have studied Swinton's elementary geography, . .	156
Who do not study geography,	143

 419

Respectfully submitted,

GEO. E. HOWE, *Superintendent.*

THE SCHOOL AND ITS METHODS.

The following description of the School and its methods, is copied mainly from our last Annual Report :

The Connecticut State Reform School for delinquent and wayward boys is beautifully located upon a high elevation of land in the City of Meriden, a thriving manufacturing city, with a population of 25,000 inhabitants, situated on the New York, New Haven and Hartford railway, midway between the cities of Hartford and New Haven. The buildings of the Institution are less than half a mile from the center of the city, and are only ten minutes walk from the railroad depot.

The farm belonging to the Institution lies in the rear of the buildings, and contains one hundred and ninety-five acres of land, one hundred acres of which are comparatively level, and well adapted to the raising of small fruits and garden vegetables, for which purposes it has already been largely appropriated. The balance of the land is somewhat broken, a portion being covered with a thick growth of small timber, while the remainder furnishes good pasturage for the stock. A living stream of pure water runs through the farm near its center.

The buildings of the Institution are mostly of brick, and are well constructed. They consist of one central building, three cottage buildings, a church edifice, a large boiler and coal house, a conservatory, a bake house, a large hay and cow barn, a horse barn and carriage sheds, cattle sheds, hennery, piggery, woodhouse, etc.

The main or central building fronts the East, is 300 feet long by 50 deep, the central portion being four stories high above the basement, the wings on either side being three stories high. Attached to the rear of the main building, on the West, is also a wing 120 feet long by 40 feet wide, which is three stories high above the basement. In the basement story of the main building are located the kitchen, laundry, engine room, six store rooms, milk room, two large play rooms, two bath rooms, and two rooms for storage of coal. The kitchen is furnished with three large steam kettles for cooking pur-

poses, the steam being supplied from the boilers at the boiler house. There is also a six-horse power vertical boiler in the kitchen, to be used in case of accident to the other boilers, and on Sundays, when the large boilers are not in use.

The bakery and bread room are conveniently connected with the kitchen, and are under the same supervision.

The laundry is supplied with three of the Nonpareil washing machines of the largest size, and a large mangle. The accommodations for drying clothes by steam are ample. There are, also, conveniences for making starch, and for preparing soap for the machines by steam.

The engine room contains a boiler of 25-horse power, and an engine of 15-horse power. The power is used in running the machinery of the laundry; also for running 125 sewing machines.

There are two play rooms, one for each division of the School, which are nicely furnished with settees, sufficient to seat all of the boys, and the rooms are pleasantly decorated with pictures and paintings of various kinds, and are very well supplied with newspapers and magazines. These rooms furnish a pleasant place for boys who desire to spend a portion of their play time in reading or in innocent games.

The bath rooms are supplied with a plunge and shower bath. By the aid of steam the shower can be made of any desired temperature. The accommodations are so ample that all of the boys can be thoroughly bathed in thirty minutes. The rooms are well provided with looking-glasses, combs and brushes, and pleasant conveniences for obtaining cool drinking water at all times.

The first story of the main building above the basement contains one general office, a private office for the Superintendent, one reception room, a library room; four large school rooms with a seating capacity for one hundred boys each, one recitation room, two large wardrobe rooms for boys' Sunday clothing, one officers' sitting room, private dining room and kitchen for the Superintendent's family, large dining room and kitchen for the officers of the Institution, two large dining rooms with a seating capacity for 375 boys, together with numerous closets, pantries, halls, etc.

The second story contains parlors and sitting room, bed chambers and closets for Superintendent's family, six rooms for officers, three large shop rooms and two sleeping halls. The shop rooms are in

the rear wing, and are used for the manufacture of shirts. One hundred and twenty-five sewing machines, run by steam, are used in these manufacturing rooms.

The sleeping halls has a capacity for comfortably lodging 375 boys. The halls extend to the top of the building, and are sufficiently high to admit of two corridors above the main floor. The halls are light and pleasant, with good ventilation. They are furnished with single bedsteads, good mattresses, feather pillows, and plenty of bedding adapted to the season. The halls are also provided with six night closets, conveniently located, and with hydrants, from which good drinking water can be obtained at all times. A night watchman looks carefully after the wants of the boys during sleeping hours.

The third story, in the center and end wings, contains fifteen rooms, which are used for guest chambers and sleeping rooms for officers of the Institution. In the rear wing of this story, there is a large shop, where one hundred boys labor at cane-seating chairs, and a band room.

The fourth story of the central portion of the building is used for hospital purposes, with rooms for the nurses, etc. The hospital contains nine wards, and is provided with hot and cold water, and all conveniences necessary for making the sick comfortable.

In the rear of the main building there are two yards, surrounded by a high fence, in which the boys have ample time for exercise and play. There is also a yard of three acres of ground, containing a pleasant grove of chestnut and oak trees, surrounded by a neat picket fence, five feet high, where the boys are often permitted to play, and where, in the summer time, they enjoy their holiday sports. The grounds surrounding the buildings are tastefully laid out, and are well set with ornamental shrubs and flowers. The boys in the main building or congregate department of the School, number about 300.

Three cottages have recently been built, that very comfortably accommodate fifty boys each. They are built of brick, are three stories high above the basement, and cost about \$16,000 each. The basements contain a large play room, a room for storage, two bath rooms, and a fruit cellar. All of the basement rooms are well lighted and warmed, where heat is needed.

The first story contains a large school room, handsomely seated and furnished, officers' private rooms, a bath room, reception room, two dining rooms, a kitchen and pantry, and two halls.

The second story contains a sleeping hall for twenty boys, a hospital room, a teachers' room, a bath room, a room for boys' Sunday clothing, a store-room for bedding, etc., and a large shop room.

The third story contains a sleeping hall for thirty boys, a bath room, and a store room for bedding.

The buildings are finished in hard wood, are well furnished in every department, are lighted with gas, supplied with water from the city reservoir, and warmed by steam.

The buildings differ architecturally in their outside appearance, but are substantially the same in their interior arrangements. Each cottage is supervised by a gentleman and his wife, and one lady teacher. They are conducted on what is known as the open or family plan, the boys being held in their places by kindness and home influences, instead of the more arbitrary appliances of bolts, bars and high fences.

The chapel edifice is a beautiful structure, with a seating capacity for five hundred boys. It contains a large platform, with convenient side rooms, which afford excellent facilities for giving concerts and other appropriate entertainments. A grand piano stands upon the platform. The chapel was erected at a cost of about \$15,000.

The boiler house is a solid structure of brick and stone work, 35 by 57 feet, and is two stories high. The lower story is 18 feet high, and contains a room for three boilers of 60-horse power each, and a coal room that furnishes storage for 300 tons of coal. The boiler room contains a receiving tank, force pump, and all apparatus necessary to supply all the buildings with steam sufficient to warm them well and in the most approved manner, and to drive the machinery in the laundry and in the manufacturing departments. The chimney stack is 80 feet high, and gives an excellent draft in all kinds of weather. The upper story of the building contains a shoe shop, and living rooms for the engineer.

The farm buildings are commodious and afford storage room for all the carriages and smaller implements necessary for the farm and for the use of the Institution. The main barn is 83 feet in length by 42 feet in width, and is three stories high. The lower or ground floor is used as a manure cellar, and for storing the winter supply of vegetables, the two being separated by a heavy cemented wall of stone. The capacity of these is about forty cords of manure and two thousand bushels of vegetables. The middle story contains the

stabling, running the entire length, arranged for the comfort and cleanliness of the stock, two rooms for such animals as need seclusion, a bedding room, and bays for hay, which extend through the upper story to a height of twenty-five feet. The third story contains the driving floor, where the hay and other fodder, as well as the grain, are all drawn and stored, a feed room and rooms for the smaller farm tools. Above the floor is a large space for grain or hay. The building is capable of storing seventy tons of hay, and is in all respects a model of convenience and economy of labor. Connected with this building by a carriage shed, is a horse barn, 30 feet in length by 24 feet in width, conveniently divided into stabling, a harness room, and a lodging room for the hostler, while above these is ample room for bedding, hay and other feed. There is also attached to the main barn a shed, 54 feet by 20 feet, which furnishes additional stalls for cattle, as well as protection for the spring water with which the stock are supplied, and for the more bulky farm implements. Another building near these, 32 feet by 20 feet, is used also for storing farm implements.

The piggery stands about 500 feet from the main or school building, and consists of a brick front, 34 feet by 20 feet, in which the cooking for the swine is done, and also the slaughtering of the pork. Extending from this is a wooden building, 65 feet by 12 feet, where the swine are kept. This is divided by movable partitions into eight pens, or less if desired, and is arranged with special reference to the comfort of the animals, and ease and convenience in their care.

The neat stock kept upon the farm, include twelve milch cows, two heifers, and one pair of working oxen. None of these are full blooded, but are, with a single exception, Jersey or Ayrshire grades, and were nearly all raised upon the farm. No animals of this class are kept after they become unprofitable, from old age, or failure of any kind, but are always converted into beef and sold. The service of five horses is required for freighting, driving and farm work. The swine kept are nearly all Berkshire grades, and vary in number from twenty to forty. Very little grain is fed to them, as the number kept depends upon the amount of feed supplied by the Institution.

WATER SUPPLY.

The Institution is supplied with water from two sources. The water of a never-failing spring, one mile and a quarter away, owned

by the Institution, is conducted by a three-inch pipe to the buildings, and furnishes sufficient for cooking and drinking purposes; also, all needed water for the barns and piggery, and for irrigation at various points upon the farm. For the boilers, laundry, closets and all general purposes, the supply is obtained from the city water works. The pressure of this water is about eighty-five pounds, and is sufficient to force the water to any part of the buildings, in case of fire. The Institution has three convenient hydrants and hose, that may be used, should the necessity for their use ever occur.

GAS.

The Institution is supplied with gas from the city gas works.

INDUSTRIES.

There are six shops in the Institution that give employment to over three hundred boys. In the tailor shop, where the clothing worn by the boys is made and repaired, twenty boys are employed. About two hundred and twenty-five boys work at cane-seating chairs in two different shops. A shoe shop gives employment to a small class. The farm and garden, in the summer time, call for a class of from thirty to forty boys; in the winter, a small class cares for the stock and does the necessary work about the premises. From eight to ten boys work at the green-house and on the lawns. The laundry, dining rooms, kitchen, sleeping halls, etc., all require classes from six to ten boys each.

FOOD.

The dietary of the Institution, while it does not embrace the variety ordinarily found on the tables of well-to-do people, still the quality of the food daily placed before the boys could be no better. The bread is made from a good grade of white flour; the meats used are of the best quality, and the vegetables are supplied abundantly from the Institution gardens, and embrace a full variety of such kinds as are found in the best market gardens. Coffee is furnished for breakfast and supper, in which all the milk from the Institution dairy is used, averaging from one hundred to two hundred quarts daily. Once a week a bountiful dinner of fish or fish chowder is given. The tables are supplied daily with butter or molasses, and, on Sunday, pies are given at dinner and cakes for supper. On Thanksgiving day a bountiful turkey dinner is furnished, and, on all other holidays, the tables are spread with all the delicacies of the season.

The boys are allowed all they want to eat at every meal, and no boy need ever leave the table hungry. The deprivation or a change of food is never allowed as a punishment. The tables are nicely covered with white oil cloth, and are spread with white porcelain ware, silver plated knives and forks, spoons and casters. Good manners are taught and required at meal time.

CLOTHING.

The boys of the Institution are clothed in the best quality of all-wool gray cloth for pantaloons, and dark indigo blue army goods for jackets. Heavy Amoskeag Hickory is used for shirting; their caps are made to order from all wool blue cloth, and their shoes and stockings are of good quality. They dress in Summer in lighter goods, according to the season.

RECREATION.

All holidays are devoted entirely to recreation and play. Portions of each week day, that will equal at least two hours of time, are also given for play. On Saturday afternoons, when the weather is suitable, the boys go to the ball grounds, in an open field of many acres, where they enjoy full freedom in playing ball, or such games as may suit their tastes best. Many opportunities are given to attend appropriate amusements at the Opera House in the city, and frequent rehearsals, concerts and exhibitions are given for the benefit of the boys in our own chapel. They attend the Agricultural Fairs given in the park near by, and always take part in the ceremonies on the day devoted to the decoration of the soldiers' graves.

RELIGIOUS AND MORAL INSTRUCTION.

Two services are held in the chapel each Sabbath; Sabbath school in the morning and preaching in the afternoon.

The "International Lesson Leaves" are used in the Sunday school. These lessons, with the explanation, prayers, responsive exercises and music, make a very interesting and profitable service.

The ministers from the several churches of the city preach in their turn at the Sunday afternoon service.

The Sisters of Mercy instruct the Catholic boys of the School an hour each Sabbath.

Devotional exercises are held morning and evening each day of the week, and grace is said before all meals.

There is a moral review every evening, at which time a record is

made in a book kept for the purpose of every boy's conduct during that day. These records determine a boy's standing in the School at all times.

SCHOOLS.

All the boys attend school three hours each week day, ten months in the year. The schools embrace ten grades or divisions, which give every boy the opportunity to attend a class exactly adapted to his scholarship, and as a rule, substantial and praiseworthy progress is made in study. Much attention is given to the subjects of reading, writing, spelling and arithmetic. Any boy, with an average mind, can, while at school, obtain an education that will fit him to transact the ordinary business of life.

MUSIC.

Much attention is given to music, both vocal and instrumental. All the boys are taught vocal music, and about thirty boys are under constant training in instrumental or band music. Great proficiency is made in both departments.

SENTENCES.

Boys between the ages of seven and sixteen years can be sent to the School during minority by any court of record in the State. Parents or guardians may secure the admission of their sons or wards, without process, by paying \$3 per week, quarterly and in advance, for their board.

DISCHARGES.

Boys are dismissed on probation, after they obtain the "Honor Grade," and this grade, by uniform good conduct, can be attained in one year after entering the School. By indifferent or bad conduct, promotions are lost, and, as a result, the time for a boy to remain in the school is lengthened.

All boys that go out on leave of absence are required to communicate with the Institution once in six months, and, by failing to do so, they are at once looked after by the authorities of the School. A record is kept, as far as is possible, of every boy's conduct after he leaves the institution.

The Board of Trustees has discretionary power to dismiss any boy from the Institution, whenever the interests of the School or the boy will be promoted by such dismissal.

NAMES, RESIDENCES, COMMISSION, AND RETIREMENT OF THE
TRUSTEES OF THE STATE REFORM SCHOOL, FROM ITS
COMMENCEMENT TO THE PRESENT TIME.

Date of Commission.		Date of Retirement.
1851,	GIDEON WELLES, Hartford,	1853,
1851,	PHILEMAN HOADLEY, New Haven,	1857.
1851,	E. S. ABERNETHY, Bridgeport,	1853.
1851,	A. N. BALDWIN, West Milford,	1855.
1851,	PHILO M. JACKSON, Norwich,	declined.
1851,	ERASTUS LESTER, Plainfield,	1854.
1851,	HENRY D. SMITH, Middletown,	1853.
1851,	JOHN H. BROCKWAY, Ellington,	1852.
1853,	PHILIP RIPLEY, Hartford, died in office,	1863.
1853,	DAVID PATCHEN, Weston,	1854.
1853,	JOHN P. GULLIVER, Norwich,	1854.
1853,	JOHN S. YEOMANS, Columbia,	1856.
1853,	JAMES PHELPS, Essex,	1855.
1854,	FRED S. WILDMAN, Danbury,	1858.
1854,	MOSES PIERCE, Norwich,	1856.
1854,	JOHN GALLUP (2d), Brooklyn,	1858.
1855,	SYLVESTER SPENCER, Litchfield,	resigned, 1858.
1855,	ELIHU SPENCER, Middletown,	declined.
1856,	MOSES CULVER, Middletown,	1858.
1856,	THOMAS CLARK, Coventry,	1860.
1856,	W P. BENJAMIN, New London,	1876.
1857,	W. S. CHARNLEY, New Haven,	declined.
1858,	E. W. HATCH, Meriden,	resigned, 1859.
1858,	HORACE GAYLORD, Ashford,	1862.
1858,	DAVID P. NICHOLS, Danbury,	1875.
1858,	THOS. A. MILLER, Torrington,	1859.

Date of Commission.		Date of Retirement.
1858,	BENJAMIN DOUGLASS, Middletown,	1876.
1859,	HIRAM FOSTER, Meriden,	1873.
1859,	DANIEL G. PLATT, Washington, died in office,	1871.
1859,	HENRY MCCRAY, Ellington,	1876.
1862,	ROSWELL BROWN, Hartford, died in office,	1877.
1862,	WILLIAM SWIFT, Windham,	1866.
1863,	HENRY B. HUBBARD, Middletown,	declined.
1866,	JAMES B. WHITCOMB, Brooklyn,	1874.
1871,	GEORGE LANGDON, Plymouth,	1875.
1873,	HIRAM A. YALE, Meriden,	1877.
1874,	S. B. COCKS, Huntington,	resigned, 1876.
1874,	F. O. BENNETT, Willimantic,	retired, 1882.
1875,	DELOS H. STEVENS, Barkhamstead,	retired, 1879.
1875,	CHAS. FITZGERALD, Middletown,	still in office.
1875,	EDWARD W. SEYMOUR, Litchfield,	retired, 1876.
1875,	GOODWIN COLLIER, Hartford,	retired, 1876.
1875,	CHARLES L. ENGLISH, New Haven,	resigned.
1876,	JOHN M. BREWER, Norwich, died in office,	1878.
1876,	G. H. PRESTON, M. D., Tolland, " " "	1883.
1877,	VINCENT COLYER, Darien,	retired, 1886.
1877,	JOHN L. HOUSTON, Thompsonville,	still in office.
1878,	A. P. WILLOUGHBY, Norwich,	retired, 1879.
1879,	CHARLES FABRIQUE, New Haven,	still in office.
1879,	J. S. LATHROP, Norwich	" "
1879,	THEODORE BIRD, Bethlehem,	" "
1882,	ALBERTUS S. BRUCE, Pomfret,	" "
1883,	CHARLES F. SUMNER, Bolton,	" "
1886,	JOHN K. BUTLER, Darien,	" "
RESIDENT TRUSTEES.		
1877,	ISAAC C. LEWIS, "	" "
1877,	CHARLES L. UPHAM, "	" "
1877,	OWEN B. ARNOLD, "	" "
1887,	D. S. WILLIAMS, "	" "

FORM OF INDENTURE ADOPTED BY THE TRUSTEES.

To the Trustees of the Connecticut State Reform School:

I hereby request that the boy named

received as indentured, according to the law, to the STATE REFORM SCHOOL, at MERIDEN, and I hereby bind myself and agree to the following conditions, viz :

The price of board, education, training, and clothing for said boy, shall be at the rate of THREE DOLLARS per week, payable quarterly in advance, and the said

is bound to remain in the Institution for the term of months, entitled to the same supervision, medical treatment, support and education, and subject to the same regulations, employment, and restraint, as all other inmates of said School.

[SIGNED.]

CIRCULAR OF INFORMATION TO PARENTS AND GUARDIANS.

We take this method of informing you that your was this day duly received at this Institution, here to remain during his minority, or until otherwise discharged in accordance with the rules of the School. Any boy by uniform good conduct can reach his "Honor Grade" in one year from the time he enters the School. He is then given a probationary discharge to go to his home, where he will be permitted to remain as long as he does well. If his conduct in the School is not good, the time for his receiving his probationary discharge will be increased. For your further information, it is proper to state that the Institution is not a prison—but a School of detention and reform—where the inmates receive such instruction and training as are best adapted to form and perpetuate a virtuous character, to establish habits of industry, and to advance them in those branches of knowledge which are taught in the Common Schools of the State. They are here provided with a home in every way pleasant and comfortable, are furnished with steady employment, of a kind that will aid them in earning an honest living after they leave the School. They have appropriate seasons for recreation and play, are well fed and clothed, and, when sick, have the best of care and medical attendance. They attend school regularly six days of the week, are taught by efficient and experienced teachers, and on Sunday enjoy the privileges of the Sabbath school, and one regular Chapel service, over which some minister of the Gospel from one of the city churches presides. The Catholic boys of the School receive one hour of instruction each Sabbath from the Sisters of Mercy.

In order to accomplish the wise ends for which this Institution was established, to wit: the reformation of the boys entrusted to its care, it will be necessary for them to remain in the School for a

sufficient length of time to receive such training and discipline as will serve to reform their evil ways, and to establish in them correct moral principles and habits of industry.

Applications for the discharge of boys from the Institution are frequently made in a short time after their commitment, but, of course, these applications cannot be entertained. Experience has taught the management that the best interests of the School are promoted by treating the boys all alike, and by requiring all to procure their "Honor Badge" before leaving the School. If there is a deviation from the rule in a *single* case, every other boy has the *right* to ask for the same deviation in *his* case, and the Institution would soon lose its reformatory character.

Parents, guardians, and other near friends, are permitted to visit the boys on the first Wednesday of each month, at which time no pains will be spared in giving all information sought for, in relation to the standing of any boy in the School.

The boys are permitted to write to their friends once a month, and the friends are allowed to write to the boys at their pleasure. In case of the serious illness of any boy, his friends will at once be advised of his condition.

AMENDMENTS TO LAW RELATING TO THE REFORM SCHOOL, MERIDEN.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Whenever any boy under the age of sixteen years shall be convicted of any crime or misdemeanor, punishable by fine or imprisonment, other than imprisonment for life, the court or justice of the peace, as the case may be, may commit him to the Reform School, to remain until he shall arrive at the age of twenty-one years, unless sooner discharged by the Board of Trustees. And the judges of the criminal and police courts of the State and justices of the peace shall have power to commit to the Reform School: first, any boy under sixteen years of age, who may be liable to punishment by imprisonment under any existing law of the State, or any law that may be enacted and in force in the State: second, any boy under sixteen years of age, with the consent of his parents or guardian, against whom any charge of committing any crime or misdemeanor shall have been made, the punishment of which, on conviction, would be confinement in jail or prison; third, any boy under sixteen years of age, who is destitute of a suitable home and adequate means of obtaining an honest living, or who is in danger of being brought up, or is brought up, to lead an idle or vicious life; fourth, any boy under sixteen years of age, who is incorrigible or habitually disregards the commands of his father or mother or guardian, who leads a vagrant life, or resorts to immoral places or practices, or neglects or refuses to perform labor suitable to his years and condition, or to attend school.

Sec. 2. That every boy sent to the Reform School shall remain until he is twenty-one years of age, unless sooner discharged or bound

as an apprentice; but no boy shall be retained after the Superintendent shall have reported him fully reformed.

Sec. 3 That whenever there shall be as large a number of boys in the School as can be properly accommodated, it shall be the duty of the President of the Board of Trustees to give notice to the criminal and police courts of the fact: whereupon no boys shall be sent to the School by the said courts, until notice shall be given them by the President of the Board that more can be received.

Sec. 4. If any person shall entice or attempt to entice away from said School, any boy legally committed to the same, or shall knowingly harbor, conceal, or aid in harboring or concealing any boy who shall have escaped from said School, such person shall, upon conviction thereof, be deemed guilty of a misdemeanor, and shall pay a fine of not less than ten or more than one hundred dollars, which shall be paid to the Treasurer of the Board of Trustees; and every sheriff, deputy sheriff, constable, or officer of local police, or any officer or employee of said School, shall have power, and it is hereby made his duty to arrest any boy, when in his power so to do, who shall have escaped from said School, and return him thereto.

Sec. 5. That the Trustees shall have full power to place any boy committed as herein described, during minority, at such employment, and cause him to be instructed in such branches of useful knowledge as may be suitable to his years and capacity, as they may see fit; and they may, with the consent of any such boy, or his parents or guardians, bind him out as an apprentice during his minority, or for a shorter period, to learn a trade or to other employment, as in their judgment will tend to his future benefit; and the President of the Board shall, for such a purpose, have power to execute and deliver, on behalf of the said Board indentures of apprenticeship for any such boy; and such indentures shall have the same force and effect as indentures of apprenticeship executed by his legal guardian, and shall be filed with the records in the office of the Reform School.

Sec. 6. In case any boy so apprenticed shall prove untrustworthy and unreformed, the Trustees may, at their discretion receive such boy into the Reform School, to be held in the same manner as before his said apprenticeship, and may thereupon cancel the indentures of such boy. And if, in the opinion of the Trustees, any boy apprenticed out by them shall have an unsuitable home, or if

the person to whom such boy is indentured shall become unfit or incapable to properly raise or take care of him, the Trustees may, at their discretion, return such boy to the School.

Sec. 7. Whenever a boy is dismissed from the School to his parents, or to otherwise care for himself (except by indenture, as in the foregoing section,) he shall be dismissed on probation merely, and the Board of Trustees shall have power to send for and return him to the School, when in the opinion of a majority of the members of said Board, the interests of the boy will be promoted by such return.

Sec. 8. All acts inconsistent with the foregoing are hereby repealed.

An Act in Addition to an Act Entitled “An Act Concerning Education.”

Resolved by this Assembly: That in the several Reform Schools in this State equal privileges shall be granted to clergymen of all religious denominations to impart religious instructions to the inmates thereof; and that every opportunity be allowed such clergymen to give to the inmates belonging to their respective denominations such religious and moral instructions as said clergymen may desire, and the Trustees of said Institution shall prescribe reasonable times and places, not inconsistent with the proper management of said Institution, when and where such instruction may be given, and such instruction shall be open to all who may choose to attend.

Approved July 25th, 1874.

BY-LAWS.

MEETINGS OF THE TRUSTEES.

Section 1. There shall be a regular meeting of the Board of Trustees, held at the School in Meriden, on the second Wednesday of January, April, July and October in each year, and the July meeting shall be the annual meeting

Sec. 2. Special meetings shall be called by the President of the Board, at the written request of two members, provided that ample notice and the object of such meetings shall be given.

Sec. 3. A majority of the members shall constitute a quorum for the transaction of business, but a smaller number present at any regular or special meeting may adjourn to any specified time.

Sec. 4. The Board of Trustees shall be organized annually, at the regular meeting held in July, by the election by ballot, of a President, Secretary, Treasurer, an Executive Committee to consist of three members, and an Auditing Committee to consist of two members.

PRESIDENT.

Sec. 5. It shall be the duty of the President to preside at all the meetings of the Board; but in his absence, the Board shall appoint a chairman, *pro tem*.

SECRETARY.

Sec. 6. It shall be the duty of the Secretary to keep an accurate record of all proceedings of the Board, in a book provided for that purpose, which shall at all times be open to the inspection of any member; to prepare all documents and statements which may be ordered by the Board; to take charge of all communications and reply thereto in accordance with such instructions as he may receive from the Board or Executive Committee.

TREASURER.

Sec. 7. The Treasurer shall receive and disburse the moneys of the Institution, and keep a true and just account of the same. He shall pay no bills except on an order drawn by the Superintendent, and countersigned by the Executive Committee, and for the faithful performance of his duties, he shall give a satisfactory bond in the sum of eight thousand dollars.

EXECUTIVE COMMITTEE.

Sec. 8. It shall be the duty of the Executive Committee to make, or order the Superintendent to make, all purchases for the School, to authorize such repairs as may, from time to time, be necessary; but no expenditures for repairs exceeding one hundred

dollars shall be authorized except by the Board. They shall examine as to whether economy is observed in the different departments of the School, and the quantity and quality of food and clothing furnished. They shall once in each month, or oftener if they choose, without notice to Superintendent or other officers, inspect the school buildings, and all the departments, rooms, and closets thereof, and see that all are kept perfectly clean and neat; they shall inquire into the behavior of all officers and employees, and, in a book kept for that purpose, enter all their proceedings and observations, which book shall be laid before the Board at every meeting. They shall also, at each monthly meeting, examine all bills presented by the Superintendent, and if found correct, approve the same.

Sec. 9. There shall be as many meetings of the Executive Committee as the interests of the School require.

AUDITING COMMITTEE.

Sec. 10. It shall be the duty of the Auditing Committee to examine the accounts of the Treasurer, thoroughly and minutely, up to the 30th day of June in each year, and report thereon to the Board at the next regular meeting.

OFFICERS.

Sec. 11. The following named officers of the School shall be appointed by the Board of Trustees, whenever their services may be required, viz: a Superintendent, an Assistant Superintendent, Book-keeper, Matron, Teachers, Overseers of the workshops and a Farmer.

Sec. 12. The several officers shall hold their appointments during the pleasure of the Board, and no resignation shall take effect until three months after being tendered in writing, except by consent of the Board of Trustees.

SUPERINTENDENT.

Sec. 13. The Superintendent shall have the general charge of the Institution.

He shall see that the subordinate officers are punctual and faithful in the discharge of their respective duties, and that the regulations and by-laws are carefully observed.

He shall keep a journal and make a record of all occurrences worthy of notice, which shall be subject to the inspection of any member of the Board.

He shall perform all the correspondence, keeping files of all letters received, and copies of those sent, as far as important, for reference. In suitable books he shall keep regular and complete accounts of all property entrusted to his care, showing the expenses and income of the Institution.

He shall make out and present to the Treasurer of the Institution the bill for weekly board of inmates, and perform all the duties of this department according to law.

Under the advice and direction of the Executive Committee he

shall procure the necessary supplies for the Institution, and purchase all such articles and materials as may be wanted for the support and employment of the boys, and dispose of all articles raised on the farm, or manufactured by them, which are not wanted for use.

In a suitable book, he shall keep an account of all purchases, and the cost of delivering the same at the Institution.

He shall daily inspect every part of the premises, and have a watchful care over the inmates, and be responsible for the proper care and discipline of the boys.

He, or the Assistant Superintendent, shall examine all packages and letters received for the boys, and shall examine their letters before being sent away.

He shall see that they receive no detriment to health from want of sufficient clothing by day or night, from wet or cold, or from any other exposure, and that the rooms and buildings are properly warmed and ventilated.

He shall employ, whenever necessary, suitable persons for any temporary services not provided for in these by-laws, and report the same to the Executive Committee.

At each quarterly meeting he shall report to the Board the number of boys committed to the Reform School, also communicate full information of the state of the Institution, and make such suggestions as he may think proper for the consideration of the Board.

At each July meeting he shall furnish the Board with a duplicate copy of his accounts, presented to the State Comptroller of Public Accounts, up to the 30th day of June; also a full schedule of all property of the Institution, including everything in the care of the Farmer.

He shall at all times be ready to perform whatever other services may be required by the Board of Trustees, for the benefit of the Institution.

The Superintendent shall have the direction of the moral and religious instruction of the inmates. He shall perform devotional service, morning and evening; have charge of the Sabbath School, and obtain such aid from the reverend clergy in the vicinity as may be necessary.

He shall occasionally give familiar expositions of moral and religious duty in such a manner as he shall deem most conducive to the good of the boys, and at such times as may be determined on by consultation with the Trustees.

He shall mingle freely with the boys in kind, familiar intercourse, and spend as much time with them in conversation as he may think for their benefit, and as will be consistent with the proper performance of his duties, and his position in the Institution.

At the quarterly meeting of the Trustees in July, he shall make a report, stating all facts respecting the reformatory influence effectively made use of in this Institution.

ASSISTANT SUPERINTENDENT.

Sec. 14. The Assistant Superintendent shall assume and perform all the duties of the Superintendent during his absence or inability.

THE MATRON.

Sec. 15. The Matron shall have the general charge and direction of all the domestic arrangements of the family, and shall see that cleanliness, order and propriety are uniformly maintained in her departments.

She shall see that all female assistants, except teachers, are diligent and faithful in the discharge of their respective duties, discrete and regular in their deportment, and strict in their observance of all the regulations of the Institution, and shall report to the Superintendent any remissness that may come to her knowledge.

She shall confer and advise with the Superintendent respecting the duties of the persons employed in the departments under her charge, and also as to the general management of the house.

TEACHERS.

Sec. 16. The teachers shall instruct the boys in such branches of education as may be required by the Superintendent, and shall use all proper means to inspire them with a love of study, and lead them justly to estimate the value of a sound and practical education, and shall constantly strive, by precept and example, to impress on their minds the importance of good order, self-government, and purity of body and mind.

They shall take charge of the boys at all times in the school-rooms and shall require them to be promptly in their places at the appointed time, unless they are absent by permission of the Superintendent.

They shall attend to the cleanliness and good order of the school-rooms, and shall be responsible for the safety, care and preservation of all books, furniture, apparatus and fixtures provided for the same; and by strict personal examination see that no injury or waste is suffered.

They shall assist in the Sabbath School, in the care of the boys on the Sabbath, in vocal music, and the principal teacher shall act as librarian to the boys.

OVERSEERS OF WORKSHOPS.

Sec. 17. The overseers of the workshops shall take charge of all tools used in their respective departments, and see that the same are carefully preserved and accounted for; shall see that all stock and material are worked with prudence and economy, and properly manufactured. They shall keep accurate accounts of the number of boys and time employed each day, of the work done, and of all articles made, and how disposed of. They shall attend to the cleaning, warming and ventilation, and keep a daily record of the temperature of their workshops.

They shall have charge of the boys during work hours in the shops; shall exercise a prudent and judicious oversight; see that industry and good order are constantly observed, and return them to the yard, or such other place, and at such time, as may be ordered by the Superintendent. They shall also assist the teachers, if requested, in their duties on the Sabbath, and in the Sabbath School.

WATCHMEN.

Sec. 18. The Superintendent shall have power, with the approbation of the Executive Committee, to appoint one or more watchmen for night duty, whenever it is considered necessary for the safety of the Institution.

The watchman on duty shall, if required, perform a regular patrol throughout and around the buildings. He shall use the utmost vigilance to guard against damage by fire, to prevent escapes, and promptly notify the Superintendent on the first cause of alarm. He shall ring the bell in the morning, and at other times, as may be directed, and perform any other service required by the Superintendent.

THE FARMER.

Sec. 19 The Farmer, under general or specific directions of the Superintendent, shall have charge of all the farming operations, and shall be responsible for the proper management, good order, and economical use of everything connected therewith, and shall use every means in his power to increase and preserve the products of the farm.

He shall take charge of, work with, and be responsible for such boys as the Superintendent may detail to be employed on the farm, and must patiently and perseveringly instruct them in the various kinds of farm work; require of them prompt obedience, and must, by example, together with constant and vigilant supervision, teach them to faithfully perform all duties required of them.

He shall see that all domestic animals are cared for in the best manner, well fed, properly cleaned and kindly treated.

He shall keep an accurate account of everything purchased for, the labor performed on, and the amount of each kind of produce raised on the farm.

He shall see that all rules and regulations of the Institution are strictly observed by all persons under his care, and shall promptly report to the Superintendent any one who may refuse or neglect to comply therewith.

THE LIBRARY.

Sec. 20. A library of well selected books and maps, and of Sunday School Books, shall be kept at the School for the use and improvement of inmates thereof.

The Superintendent, Librarian and Chairman of the Executive Committee shall be a Standing Committee on the Library, who shall have in charge the efforts, ways and means to promote this depart-

ment of the Institution, and they shall report to the Board of Trustees, at the quarterly meetings, the progress and condition of the Library, with a full list of all donations received for this object.

VISITORS.

Sec. 21. Visitors will always be welcome to visit the School between the hours of 9 A. M., and 4 P. M., on week days, and on Sundays for the purpose of attending the religious exercises, but on that day they must leave immediately after the services are ended.

Parents will not be permitted to visit their children oftener than once a month, unless by special permission of the Superintendent ; and any article designed for any inmate must pass through the hands of the officer in attendance.

Visitors passing through the house or shops, must not go among the boys or address any conversation to them, except by permission of the attending officer.

Any visitor who shall attempt to give any inmate tobacco or other articles secretly, shall be altogether excluded from the premises.

Visitors will not be permitted in or on the premises, except attended by an officer of the Institution.

GENERAL REGULATIONS.

Sec. 22. The distribution of time for each working day shall not be less than six hours for labor, four hours for school, and from four and one-half to five hours for devotional exercises, incidental duties and recreation.

The time of rising shall be half-past five o'clock, A. M., from the first day of March to the first day of November and at six o'clock during the other four months. The time of retiring shall be at eight o'clock P. M.

All persons having requisite duties to perform, shall rise promptly at the ringing of the morning bell.

No person regularly employed at the Institution shall be absent from his or her duties without permission from the Superintendent or his Assistant, and persons getting such permission will be required to procure a substitute, to be approved by the Superintendent, to fulfill his or her duties during their absence.

It shall be incumbent on each officer to see that all rules and regulations are strictly observed, and they shall promptly report any failures therein. As the great object is *reform*, the intercourse of *all* with the boys should be so conducted as to convince them that this object is the chief end and aim of the School.

Every boy shall at all times be in charge of some responsible person, unless otherwise directed ; any boy escaping by or through the neglect or carelessness of any officer, the whole or part of the expense incurred in his capture may be charged to such officer and deducted from his salary by order of the Trustees.

No person shall take or detain a boy from the performance of one duty to discharge another, without direction from the Superinten-

dent; and no boy shall be kept or allowed to remain out of School without special permission from the Superintendent.

Any person having charge of the boys during their time of recreation, shall see that a kind and proper tone of feeling is observed among them, and that they do not use violence, or injure each other's clothing, or mar or deface the buildings, fixtures or furniture.

All persons employed at the Institution who are in health and can leave their appropriate duties at the time, shall attend the daily devotional exercises, and the religious services on the Sabbath, unless special leave of absence is granted.

No spirituous liquors or intoxicating drink shall be brought to the Institution, unless by order of the Physician. No officer or assistant shall at any time make use of such liquor, nor shall any one make use of tobacco, or smoke a pipe or cigar on or about the premises.

No tobacco shall be furnished or allowed to the delinquents in any form.

No officer shall be compelled to perform any duty inconsistent with those regularly assigned to him; but as this Institution is to be a family, as well as a School for detention and reformation, duties will occur growing out of this double relation which no by-law can clearly indicate or provide for; therefore, *all* are expected to act agreeably to the *spirit* as well as the *letter* of these rules and regulations, and hold themselves ready at all times for any emergency, to aid in preserving order, preventing escapes, and maintaining the rules and discipline of the School, and by general and constant acts of accommodation, firmness, and kindness, accomplish the desired object.

DISCIPLINE.

The discipline shall be that of the family, the school, the workshop and the farm, and not that of the prison. The inmates are to be watched over as pupils, and not guarded as prisoners or criminals; and there shall be no more restraint than shall be necessary to develop in them good, and repress bad qualities. Self-instruction, self-desire to labor, and self government shall be inculcated and encouraged as the best culture as well as the most effective discipline.

Punishment shall be imposed as a public judgment, in manner and form to be prescribed by the Superintendent, and never under the excitement of the moment. Its severity shall always be proportionate to the magnitude of the offense. It shall consist of deprivation of food or play, marks of disapprobation or demerit, solitary confinement, and the use of the rod, as resorted to in well-regulated families. Personal chastisement shall only be inflicted for some high misdemeanor or repeated offense, and only on the order of the Superintendent; and in case of severe punishment, only in his presence or that of his Assistant.

These by-laws, or any part thereof, may be altered, amended, or repealed, at any regular meeting of the Board of Trustees.

Amended July 14, 1886.

ABSTRACT
OF
Returns of County Commissioners

IN RELATION TO

JAILS, LICENSES, AND THE RECEIPTS AND
EXPENSES OF THE SEVERAL COUNTIES,

FOR THE

YEAR ENDING JUNE 30, 1887.

Compiled by the Secretary of the State.

HARTFORD, CONN.:
PRESS OF WILEY, WATERMAN & EATON.
1888.

State of Connecticut,

OFFICE OF THE SECRETARY OF THE STATE,
HARTFORD, JANUARY 2, 1888.

The following abstracts of the returns of county commissioners in relation to jails, licenses, and the receipts and expenses of the several counties in the state, for the year ending June 30, 1887, are published in compliance with chapter xxxv., section 331, of the General Statutes.

LEVERETT M. HUBBARD,
Secretary.

Abstract of Returns Concerning Jails.

Returns concerning JAILS for the County of HARTFORD for the year ending June 30, 1887.

[Certified by Westell Russell, Thaddeus H. Spencer and E. G. Woodhouse,
County Commissioners.]

Number in jail, June 30, 1886,	191	
Committed during the year,	1,474	1,665
Discharged during the year,		1,449
		<hr/>
Number remaining in jail, June 30, 1887,		216

COLOR AND SEX.

White, Males, 1,260	Females, 193	Total white, 1,453
Colored, Males, 14	Females, 7	Total colored, 21
	<hr/>	<hr/>
1,274	200	1,474

AGE.

Over 21 years, Males, 1,166	Females, 197	Total adults, 1,363
Under 21 years, Males, 108	Females, 3	Total minors, 111
	<hr/>	<hr/>
1,274	200	1,474

NATIVITY, ETC.

Natives of this state,	483
“ other states,	309
“ other countries,	682
“ this state, who cannot read or write,	38
“ other states, who cannot read or write,	25
“ other countries, who cannot read or write,	121
Who have been strictly temperate,	11
“ “ moderate drinkers,	1,264
“ “ habitually intemperate,	199
“ “ married,	339
“ “ in prison before,	592

COMMITTED.

For Adultery, 2	For Fornication, 2
Assault, 132	Frequenting house of ill-fame, 2
Assault with intent to kill, 14	Horse stealing, 6
Attempt at rape, 2	Indecent exposure, 3
Bastardy, 5	Incest, 1
Breach of the peace, 128	Keeping house of ill-fame, 6
Burglary, 10	Larceny, 121
Civil process, 5	Lewd conduct, 2
Common drunkards, 33	Malicious injury to property 5
Common prostitute, 22	Murder, 2
Contempt of court, 6	Neglect of family, 11
Cruelty to animals, 3	Obtaining goods on false-pretense, 2
Defrauding, 7	Rape, 2
Drunkenness, 745	Resisting officer, 7
Embezzlement, 6	Robbery, 2
False pretense, 3	
Forgery, 1	

For Setting fires,	5	For Vagrancy,	97
Stealing from the person,	10	Violation of liquor law,	2
Taking horse without leave,	2	All other offenses,	13
Theft, third offense,	2		
Tramps,	7	Total,	1,474
Trespass on R. R. property,	38		
Average number in confinement during the year,			205 $\frac{1}{2}$

DISCHARGED.

By Bail or recognizance,	20	Sent to state reform school,	4
Payment of fine and costs,	467	Sent to state prison,	23
Expiration of sentence,	809	Transferred to other jails for trial,	4
State's attorney,	6	Died,	2
County commissioners,	26		
Order of court,	5	Total,	1,449
Sent to court and not returned,	83		

RECEIPTS.

Received from state for board of prisoners,	\$23,555.55
“ city of Hartford for board of prisoners,	208.11
From the United States,	390.96
From earnings of prisoners,	1,700.00
From sales at jail,	257.06
From sales of swill,	100.00
Total jail receipts,	\$26,211.68
Key fees, \$791.50.	

EXPENDITURES.

For Provisions,	\$7,421.96
Clothing,	446.52
Bedding,	355.45
Fuel,	1,516.55
Hospital,	45.96
Iron bedsteads,	75.00
Insurance,	20.00
Lavine,	275.51
Lights,	162.78
Medicines,	164.68
Medical attendance,	165.00
Water,	331.79
Salary of jailer,	1,000.00
Salary of assistants,	3,208.39
Board of assistants,	300.22
Chaplain,	100.00
Telephone,	42.85
Repairs,	1,379.00
Supplies,	710.86
Total expenditures,	\$17,722.52

DUE.

From State, for board of prisoners,	\$1,977.82
United States, for board of prisoners,	2.16
City of Hartford,	31.81
Town of Hartford,	48.02
C. W. B. Edwards, for barrels,	13.50
Total amount due,	\$2,073.31

Returns concerning JAILS for the County of NEW HAVEN for the year ending June 30, 1887.

[Certified by Hiram Jacobs, Albert B. Dunham and Cecil A. Burleigh, County Commissioners.]

Number in jail, June 30, 1886,	219	
Committed during the year,	2,645	2,864
Discharged during the year,		<u>2,657</u>
Number remaining in jail, June 30, 1887,		207

COLOR AND SEX.

White, Males, 2,167	Females, 347	Total white, 2,514
Colored, Males, 87	Females, 44	Total colored, 131
	<u>2,254</u>	<u>2,645</u>

AGE.

Over 21 years, Males, 1,643	Females, 335	Total adults, 1,978
Under 21 years, Males, 611	Females, 56	Total minors, 667
	<u>2,254</u>	<u>2,645</u>

NATIVITY, ETC.

Natives of this state,	886
“ other states,	432
“ other countries,	1,327
“ this state, who cannot read or write,	63
“ other states, who cannot read or write,	42
“ other countries, who cannot read or write,	278
Who have been strictly temperate,*	
“ “ moderate drinkers,*	
“ “ habitually intemperate,*	
“ “ married,*	
“ “ in prison before,*	

COMMITTED.

For Adultery,	6	For Frequenting house of ill-fame,	22
Assault,	128	Horse stealing,	1
Assault with intent to kill,	11	Injury to property,	15
Attempt at rape,	6	Keeping house of ill-fame,	13
Bigamy,	2	Larceny,	157
Breach of the peace,	475	Lewd conduct,	39
Burglary,	72	Making or passing counterfeit money,	1
Common drunkards,	23	Murder,	6
Common prostitute,	7	Neglect of family,	26
Contempt of court,	4	Obtaining goods on false pretense,	1
Cruelty to animals,	5	Perjury,	1
Defrauding,	20	Rape,	1
Drunkenness,	1,295	Resisting officer,	87
Embezzlement,	4		
Forgery,	3		
Fornication,	51		

*No return.

For Robbery,	4	For Vagrancy,	79
Setting fires,	7	Violation of liquor law,	11
Stealing from the person,	9	All other offenses,	13
Taking horse without leave,	3		
Tramps,	37	Total,	2,645
Average number in confinement for the year,			229 $\frac{8}{12}$

DISCHARGED.

By bail or recognizance,	71	Sent to court and not returned,	172
Payment of fine and costs,	787	Sent to state reform school,	3
Expiration of sentence,	1,401	Sent to state prison,	26
State's attorney,	123	Died,	1
“ “ nolle,	11		
County commissioners,	62	Total,	2,657

RECEIPTS.

Received from state for board of prisoners,	\$26,232.83
From the United States, “ “	180.00
For board of civil process prisoners,	35.99
“ “ appeal prisoners,	1.60
From earnings of prisoners,	3,600.00
From sales at jail,	244.34
“ “ of pigs,	68.00
From use of telephone,	15.00
Stationery and stamps,	66.45
Bones and grease,	32.56
Meals to prisoners,	88.60
Total jail receipts,	\$30,372.32

EXPENDITURES.

For Provisions,	\$12,783.95
Clothing,	194.81
Bedding,	387.66
Fuel,	1,395.60
Lights,	186.83
Medicines,	334.70
Medical attendance,	250.00
Salary of jailer,	1,466.66
Salary of assistants,	3,048.90
Chaplain,	125.00
Water,	347.00
Repairs,	968.72
Shoes,	222.56
Use of telephone,	67.50
Stationery, postage, etc.,	133.93
Transportation of prisoners,	37.38
Furniture,	81.58
Incidental expenses,	64.65
Total expenditures,	\$22,097.43

DUE.

From state for board of prisoners,	\$3,783.34
United States for board of prisoners,	9.92
Total amount due,	3,793.26

Returns Concerning JAILS for the County of NEW LONDON for the year ending June 30, 1887.

[Certified by E. A. Morgan, N. H. Ayer and A. Hurlbut, County Commissioners.]

Number in jail, June 30, 1886,	50	
Committed during the year,	615	665
Discharged during the year,		610
		<hr/>
Number remaining in jail, June 30, 1887,		55

COLOR AND SEX.

White, Males, 540	Females, 40	Total white, 580
Colored, Males, 32	Females, 3	Total colored, 35
	<hr/>	<hr/>
572	43	615

AGE.

Over 21 years, Males, 527	Females, 42	Total adults, 569
Under 21 years, Males, 45	Females, 1	Total minors, 46
	<hr/>	<hr/>
572	43	615

NATIVITY, ETC.

Natives of this state,	228
“ other states,	152
“ other countries,	235
“ this state, who cannot read or write,	22
“ other states, who cannot read or write,	20
“ other countries, who cannot read or write,	71
Who have been strictly temperate,	2
“ “ moderate drinkers,	238
“ “ habitually intemperate,	6
“ “ married,	272
“ “ in prison before,	389

COMMITTED.

For Assault,	12	For Injury to property,	2
Assault with intent to kill,	6	Insanity,	1
Attempt at rape,	3	Keeping house of ill-fame,	4
Bigamy,	2	Larceny,	33
Breach of the peace,	69	Murder,	1
Burglary,	6	Neglect of family,	4
Common drunkards,	5	Obtaining goods on false	
Defrauding,	5	pretense,	2
Drunkenness,	316	Perjury,	3
Forgery,	2	Rape,	1
Fornication,	5	Resisting officer,	8
House breaking,	2	Setting fires,	4

For Tramps,	5	For All other offenses,	31
Vagrancy,	82		
Violation of liquor law,	1	Total,	615
Average number in confinement during the year,			67.53

DISCHARGED.

By Writ of <i>habeas corpus</i> ,	1	Transferred to other jails for	
Bail or recognizance,	5	trial,	8
Payment of fine and costs,	173	Sent to court and not returned,	11
Expiration of sentence,	380	Sent to state prison,	8
State's attorney,	11		
County commissioners,	13	Total,	610

RECEIPTS.

Received from state, for board of prisoners,	\$7,919.49
From the United States,	4.18
From earnings of prisoners,	325.00
Total jail receipts,	\$8,248.67

EXPENDITURES.

For Provisions,	\$3,446.77
Clothing,	109.83
Bedding,	57.70
Fuel,	606.24
Lights,	23.36
Medicines,	125.06
Medical attendance,	26.00
Salary of jailers,	1,200.00
Salary of assistants,	939.79
Barn expenses,	230.28
Repairs, etc.,	180.45
Blacksmithing,	13.25
Telephone,	63.15
Postage,	18.60
Ice,	42.65
P. O. Box,	7.00
Water,	93.50
Materials for labor,	125.36
Other expenses,	150.76
Total expenditures,	\$7,459.75

DUE.

From state, for county home,	314.32
towns, " "	39.00
Total due,	\$353.32

Returns concerning JAILS for the County of FAIRFIELD for the year ending June 30, 1887.

[Certified by John O. Page, Charles B. Wheeler and George W. Olmstead, County Commissioners.]

Number in jail, June 30, 1886,	136
Committed during the year,	1,562—1,698
Discharged during the year,	1,560
Number remaining in jail, June 30, 1887,	138

COLOR AND SEX.

White,	Males, 1,405	Females, 104	Total white,	1,509
Colored,	Males, 47	Females, 6	Total colored,	53
	1,452	110		1,562

AGE.

Over 21 years,	Males, 1,367	Females, 109	Total adults,	1,476
Under 21 years,	Males, 85	Females, 1	Total minors,	86
	1,452	110		1,562

NATIVITY, ETC.

Natives of this state,	437
“ other states,	367
“ other countries,	758
“ this state, who cannot read or write,	31
“ other states, who cannot read or write,	40
“ other countries, who cannot read or write,	128
Who have been strictly temperate,	17
“ “ moderate drinkers,	153
“ “ habitually intemperate,	1,392
“ “ married,	419
“ “ in prison before,	897

COMMITTED.

For Adultery,	6	For Forgery,	1
Assault,	131	Fornication,	3
Assault with intent to kill,	15	Frequenting house of ill-	
Attempt at rape,	2	fame,	9
Bastardy,	1	Horse stealing,	6
Bigamy,	6	Larceny,	102
Breach of the peace,	221	Making and passing coun-	
Burglary,	65	terfeit money,	3
Civil process,	5	Manslaughter,	2
Common drunkards,	19	Murder,	5
Common prostitute,	5	Neglect of family,	8
Defrauding,	17	Rape,	4
Drunkenness,	692	Resisting officer,	2

For Stealing from the person,	14	Violation of liquor law,	2
Taking horse without leave,	1	All other offenses,	27
Tramps,	81		
Vagrancy,	107	Total,	1,562
Average number in confinement during the year,			135½

DISCHARGED.

By Bail or recognizance,	15	Sent to State Reform School,	1
Payment of fine and costs,	286	Sent to state prison,	53
Expiration of sentence,	973	Escaped and not retaken,	3
State's attorney,	52	By process not specified above,	30
County commissioners,	81	Died,	3
Transferred to other jails for trial,	28	Total,	1,560
Sent to court and not returned,	35		

RECEIPTS.

Received from state, for board of prisoners,		\$15,562.86
From earnings of prisoners,		850.00
Total jail receipts,		\$16,412.86
Key fees, \$774.50.		

EXPENDITURES.

For Provisions,		\$5,983.31
Clothing,		718.79
Bedding,		235.00
Fuel,		1,017.98
Lights,		314.31
Medicines,		175.76
Medical attendance,		119.00
Salary of jailers,		2,253.33
Salary of assistants,		1,106.88
Repairs,		1,252.28
Insurance,		462.50
County commissioners,		370.80
Auditors,		42.30
Water and ice,		273.68
Blacksmithing,		22.17
Feed,		238.77
Miscellaneous,		668.34
Total expenditures,		\$15,246.20

DUE.

From state, for board of prisoners,		\$1,989.55
other sources,		66.67
Total due,		\$2,056.22

Returns concerning JAILS for the County of WINDHAM for the year ending June 30, 1887.

[Certified by A. A. Stanton, E. H. Hall and John Kelly, County Commissioners.]

Number in jail, June 30, 1886,	.	.	.	16	
Committed during the year,	.	.	.	225—	241
Discharged during the year,	.	.	.		218
					<hr/>
Number remaining in jail, June 30, 1887,	.	.	.		23

COLOR AND SEX.

White,	Males,	216	Females,	2	Total white,	218
Colored,	Males,	7	Females,	0	Total colored,	7
		<hr/>		<hr/>		<hr/>
		223		2		225

AGE.

Over 21 years,	Males,	188	Females,	2	Total adults,	190
Under 21 years,	Males,	35	Females,	0	Total minors,	35
		<hr/>		<hr/>		<hr/>
		223		2		225

NATIVITY.

Natives of this state,	.	.	.	.	62
“ other states,	.	.	.	.	71
“ other countries,	.	.	.	.	92
“ this state, who cannot read or write,	.	.	.	.	1
“ other states who cannot read or write,	.	.	.	.	0
“ other countries who cannot read or write,	.	.	.	.	4
Who have been strictly temperate,	.	.	.	.	18
“ “ moderate drinkers,	.	.	.	.	206
“ “ habitually intemperate,	.	.	.	.	1
“ “ married,	.	.	.	.	58
“ “ in prison before,	.	.	.	.	113

COMMITTED.

For Adultery,	.	1	For Murder,	.	1
Assault,	.	4	Neglect of family,	.	1
Attempt at rape,	.	2	Obtaining goods on false		
Breach of the peace,	.	4	pretense,	.	1
Burglary,	.	6	Resisting officer,	.	2
Common drunkard,	.	1	Tramps,	.	19
Defrauding,	.	1	Vagrancy,	.	8
Drunkenness,	.	129	Violation of liquor law,	.	2
Forgery,	.	1	All other offenses,	.	33
Horse stealing,	.	1			<hr/>
Injury to property,	.	2	Total,	.	225
Larceny,	.	6			

Average number in confinement during the year, . . . 34 $\frac{1}{8}$

DISCHARGED.

By Bail or recognizance,	6	Sent to state prison,	16
Payment of fine and costs,	37	Sent to hospital,	2
Expiration of sentence,	141	Escaped and not retaken,	1
State's attorney,	5		
Sent to court and not returned,	10	Total,	218

RECEIPTS.

Received from state for board of prisoners,	\$3,911.41
Received for board of transients,	8.50
" earnings of prisoners,	1,857.11
" sales of pork,	163.05
" sales of live stock,	392.66
" rent of land,	51.00
" sales of sundries,	43.14
Total jail receipts,	\$6,426.87

EXPENDITURES.

For Provisions,	\$1,891.86
Clothing,	233.28
Bedding,	38.24
Fuel,	141.60
Lights,	8.90
Medicines and medical attendance,	35.84
Salary of jailers,	600.00
Salary of assistants,	306.00
Chaplain,	20.00
County commissioners,	200.68
Grain,	150.46
Hardware,	153.18
Blacksmithing,	30.25
House work,	131.85
Rent of land,	85.00
Live stock,	505.00
Fertilizer,	22.10
Repairs,	34.63
Telephone,	40.00
All other expenses,	359.50
Total jail expenses,	\$4,988.37

DUE.

From state for board of prisoners,	\$302.75
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Returns concerning JAILS for the County of LITCHFIELD for the year ending June 30, 1887.

[Certified by Lyman Dunning, S. N. Pettibone and J. K. Judson, County Commissioners.]

Number in jail June 30, 1886,	35	
Committed during the year,	144—	179
Discharged during the year,		153
		<hr/>
Number remaining in jail June 30, 1887,		26

COLOR AND SEX.

White, Males, 111	Females, 10	Total white, 121
Colored, Males, 20	Females, 3	Total colored, 23
	<hr/>	<hr/>
131	13	144

AGE.

Over 21 years, Males, 115	Females, 13	Total adults, 128
Under 21 years, Males, 16	Females, 0	Total minors, 16
	<hr/>	<hr/>
131	13	144

NATIVITY, ETC.

Natives of this state,	70
“ other states,	42
“ other countries,	32
“ this state, who cannot read or write,	11
“ other states, who cannot read or write,	11
“ other countries, who cannot read or write,	6
Who have been strictly temperate,	21
“ “ moderate drinkers,	92
“ “ habitually intemperate,	31
“ “ married,	39
“ “ in prison before,	47

COMMITTED.

For Adultery,	2	For Obtaining goods on false pretense,	1
Assault,	18	Resisting officer,	3
Assault with intent to kill,	1	Stealing from the person,	3
Breach of the peace,	13	Tramps,	3
Burglary,	2	Vagrancy,	10
Civil process,	1	Violation of liquor law,	9
Cruelty to animals,	2	All other offenses,	41
Drunkenness,	32		<hr/>
Horse stealing,	1	Total,	144
Murder,	1		
Neglect of family,	1		
Average number in confinement during the year,			24

DISCHARGED.

By Writ of <i>habeas corpus</i> ,	1	By County commissioners,	1
Bail or recognizance,	14	Sent to state prison,	6
Payment of fine and costs,	48	By process not specified above,	*
Expiration of sentence,	46		
State's attorney,	11	Total,	153

RECEIPTS.

Received from state for board of prisoners,	\$3,673.03
From earnings of prisoners,	880.09
Extra board of prisoners,	105.00
Total jail receipts,	\$4,658.12

Key fees, \$17.50.

EXPENDITURES.

For Provisions,	\$1,914.86
Clothing,	189.91
Bedding,	46.64
Fuel,	389.24
Lights,	38.32
Medicines,	134.03
Medical attendance,	27.25
Salary of jailer,	540.00
Salary of assistants,	259.92
County commissioners,	930.04
Supplies for jail,	637.49
Total expenditures,	\$5,107.70

DUE.

From State, for board of prisoners,	\$355.33
Earnings of prisoners,	663.81
Extra board,	28.00
Total amount due,	\$1,047.14

* There are twenty-six discharges not returned by these figures.

Returns concerning JAILS for the County of MIDDLESEX for the year ending June 30, 1887.

[Certified by Delos D. Brown, Charles L. Griswold and A. M. Wright, County Commissioners.]

Number in jail, June 30, 1886,	22
Committed during the year,	100— 122
Discharged during the year,	102

Number remaining in jail, June 30, 1887,	20
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COLOR AND SEX.

White, Males, 80	Females, 9	Total white, 89
Colored, Males, 10	Females, 1	Total colored, 11
90	10	100

AGE.

Over 21 years, Males, 76	Females, 9	Total adults, 85
Under 21 years, Males, 14	Females, 1	Total minors, 15
90	10	100

NATIVITY, ETC.

Natives of this state,	31
“ other states,	33
“ other countries,	36
“ this state, who cannot read or write,	6
“ other states, who cannot read or write,	1
“ other countries, who cannot read or write,	10
Who have been strictly temperate,	9
“ “ moderate drinkers,	76
“ “ habitually intemperate,	15
“ “ married,	41
“ “ in prison before,	38

COMMITTED.

For Assault, 14	For Neglect of family, 1
Breach of the peace, 6	Obtaining goods on false pretense, 2
Burglary, 3	Resisting officer, 2
Common drunkard, 1	Setting fires, 1
Contempt of court, 1	Stealing from the person, 1
Drunkenness, 48	Taking horse without leave, 2
Embezzlement, 1	Tramps, 4
Frequenting house of ill-fame, 1	Violation of liquor law, 1
Horse stealing, 3	All other offenses, 5
Injury to property, 1	
Murder, 2	Total, 100

Average number in confinement during the year, 18 $\frac{46}{100}$

DISCHARGED.

By Payment of fine and costs,	10	Sent to state prison,	6
Expiration of sentence,	74	Escaped and not retaken, .	1
State's attorney,	4		---
County commissioners,	2	Total, . . .	101
Sent to court and not returned,	4		

RECEIPTS.

Received from state for board of prisoners,	.	.	\$2,116.86
From sales at jail, . . . . .	.	.	43.40
Total jail receipts, . . . . .	.	.	<u>\$2,160.26</u>

EXPENDITURES.

For Provisions, . . . . .	.	.	\$1,604.27
Clothing, . . . . .	.	.	321.49
Bedding, . . . . .	.	.	10.43
Fuel, . . . . .	.	.	201.19
Lights, . . . . .	.	.	25.20
Medicines and Medical attendance, . . . . .	.	.	88.33
Salary of jailers, . . . . .	.	.	977.56
Salary of assistants, . . . . .	.	.	234.43
Chaplain, . . . . .	.	.	25.00
Transfer of prisoners, . . . . .	.	.	261.64
County commissioners, . . . . .	.	.	701.75
Repairs, . . . . .	.	.	360.43
Household implements, . . . . .	.	.	84.92
Freight bills, . . . . .	.	.	253.63
Farm expenses, . . . . .	.	.	687.60
Telephone, . . . . .	.	.	55.25
Town Tax,	21.80
Total expenditures,	<u>\$5,914.83</u>

DUE.

From state for board of prisoners,	\$399.82
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*Returns Concerning JAILS for the County of TOLLAND for the year
ending June 30, 1887.*

[Certified by M. P. J. Walker, George C. Hutchinson and Louis Philipp, County Commissioners.]

Number in jail, June 30, 1886,	12	
Committed during the year,	84—	96
Discharged during the year,		82
		<hr/>
Number remaining in jail, June 30, 1887,		14

COLOR AND SEX.

White, Males, 82	Females, 2	Total white, 84
Colored, Males, 0	Females, 0	Total colored, 0
	<hr/>	<hr/>
	82	2
		84

AGE.

Over 21 years, Males, 75	Females, 2	Total adults, 77
Under 21 years, Males, 7	Females, 0	Total minors, 7
	<hr/>	<hr/>
	82	2
		84

NATIVITY, ETC.

Natives of this state, *		
“ other states, *		
“ other countries,		51
“ this state, who cannot read or write, *		
“ other states, who cannot read or write, *		
“ other countries, who cannot read or write,		5
Who have been strictly temperate,		3
“ “ moderate drinkers, *		
“ “ habitually intemperate, *		
“ “ married,		28
“ “ in prison before,		9

COMMITTED.

For Assault,	5	For Resisting officer,	1
Breach of the peace,	17	Setting fire,	1
Burglary,	1	Vagrancy,	3
Common drunkard,	1	All other offenses,	4
Drunkenness,	48		<hr/>
Embezzlement,	1	Total,	84
Horse stealing,	2		

Average number in confinement during the year, 12 $\frac{1}{4}$

* Not returned.

DISCHARGED.

By Bail or recognizance, .	4	County commissioners,	2
Payment of fine and costs, .	9	Sent to state prison, .	3
Expiration of sentence, .	51		—
State's attorney, .	13	Total, . . .	82

RECEIPTS.

Received from state for board of prisoners, .	\$1,511.97
“ board of prisoners, 1885, (omitted), .	119.74
Total jail receipts,	<u>\$1,631.71</u>

EXPENDITURES.

For Board of prisoners,	\$1,511.97
Clothing,	112.37
Bedding,	14.20
Fuel,	138.25
Medicines,	6.83
Medical attendance,	27.00
Salary of jailer,	125.00
County commissioners,	171.72
Repairs of jail,	64.07
County house and jail,	46.42
Supplies,	21.67
Total expenditures,	<u>\$2,239.50</u>

DUE.

From State for board of prisoners,	\$25.00
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COLOR, AGE, SEX, NATIVITY, HABITS.

		Hartford.	New Haven.	New London.	Fairfield.	Windham.	Litchfield.	Middlesex.	Tolland.	Total.
MALES.	White,	1,260	2,167	540	1,405	216	111	80	82	5,861
	Colored,	14	87	32	47	7	20	10	0	217
	Adults,	1,166	1,643	527	1,367	188	115	76	75	5,157
	Minors,	108	611	45	85	35	16	14	7	921
	Total Males.....	1,274	2,254	572	1,452	223	131	90	82	6,078
FEMALES.	White,	193	347	40	104	2	10	9	2	707
	Colored,	7	44	3	6	0	3	1	0	64
	Adults,	197	335	42	109	2	13	9	2	709
	Minors,	3	56	1	1	0	0	1	0	62
	Total Females,	200	391	43	110	2	13	10	2	771
Natives of this state,		483	886	228	437	62	70	31	*	
Natives of other states,		309	432	152	367	71	42	33	*	
Natives of other countries,		682	1,327	235	758	92	32	36	51	
Total,		1,474	2,645	615	1,562	225	144	100		
Strictly temperate,		11	*	2	17	18	21	9	3	
Moderate drinkers,		1,264	*	238	153	206	92	76	*	
Habitually intemperate, ...		199	*	6	1,392	1	31	15	*	
Total,		1,474	*	246†	1,562	225	144	100		

* Not returned, † Incomplete.

OFFENSES.

FOR WHAT OFFENSE COMMITTED.	Hartford.	New Haven.	New London.	Fairfield.	Windham.	Litchfield.	Middlesex.	Tolland.	Total.
Abortion,.....									
Adultery,.....	2	6		6	1	2			17
Assault,.....	132	128	12	131	4	18	14	5	444
Assault with intent to kill,.....	14	11	6	15		1			47
Attempt at rape,.....	2	6	3	2	2				15
Bastardy,.....	5			1					6
Bigamy,.....		2	2	6					10
Breach of the peace,.....	128	475	69	221	4	13	6	17	933
Burglary,.....	10	72	6	65	6	2	3	1	165
Civil process,.....	5			5		1			11
Common drunkard,.....	33	23	5	19	1		1	1	83
Common prostitute,.....	22	7		5					34
Contempt of court,.....	6	4					1		11
Cruelty to animals,.....	3	5				2			10
Defrauding,.....	7	20	5	17	1				50
Drunkenness,.....	745	1,295	316	692	129	52	48	48	3,305
Embezzlement,.....	6	4					1	1	12
Forgery,.....	1	3	2	1	1				8
Fornication,.....	2	51	5	3					61
Frequenting house of ill-fame,...	2	22		9			1		34
Horse stealing,.....	6	1		6	1	1	3	2	20
House breaking,.....			2						2
Injury to property,.....		15	2		2		1		20
Insane,.....		1							1
Keeping house of ill-fame,.....	6	13	4						23
Larceny,.....	121	157	33	102	6				419
Lewd conduct,.....	2	39							41
Making or passing counterfeit money,.....		1		3					4
Malicious injury,.....	5								5
Manslaughter,.....				2					2
Murder,.....	2	6	1	5	1	1	2		18
Neglect of family,.....	11	26	4	8	1	1	1		52
Obtaining goods on false pretense,	2	1	2		1	1	2		9
Perjury,.....		1	3						4
Rape,.....	2	1	1	4					8
Resisting officer,.....	7	87	8	2	2	3	2	1	112
Robbery,.....	2	4							6
Seduction,.....									
Setting fires,.....	5	7	4				1	1	18
Stealing from the person,.....	10	9		14		3	1		37
Taking horse without leave,.....	2	3		1			2		8
Tramps,.....	7	37	5	81	19	3	4		156
Trespass on R. R. property,.....	38								38
Vagrancy,.....	97	79	82	107	8	10			383
Violation of liquor law,.....	2	11	1	2	2	9	1	3	31
All other offenses,.....	22	13	31	27	33	41	5	4	176
Total,.....	1,474	2,645	615	1,562	225	144	100	84	6,849

Abstract of Statements

IN RELATION TO THE

RECEIPTS AND EXPENSES OF THE SEVERAL COUNTIES

FOR THE YEAR ENDING JUNE 30, 1887.

Abstract of Statement of Receipts and Expenses for HARTFORD County, for the year ending June 30, 1887, as returned by Westell Russell, Thaddeus H. Spencer and E. G. Woodhouse, County Commissioners.

<i>Dr.</i>	CASH.	
To amount of cash on hand, June 30, 1886,	.	\$6,391.53
To amount received:		
From Jail, (see jail report for items),	.	26,211.68
Licenses, 5 per cent.,	.	4,475.07
" transfers,	.	409.76
" forfeited bonds,	.	403.00
County tax,	.	21,767.45
Interest on deposits,	.	196.53
Total,	.	\$59,855.02

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jail, (see jail report for items),	.	\$17,722.52
County home,	.	1,300.00
" commissioners,	.	2,589.82
" treasurer,	.	300.00
" auditors,	.	60.00
Court-house repairs, etc.,	.	938.64
" janitor and assistants,	.	1,620.00
Stationery, etc., commissioner's office,	.	208.17
County loan,	.	20,000.00
Interest on county loan,	.	2,314.25
License blanks,	.	83.43
" revocations,	.	153.55
" expenses, miscellaneous,	.	30.00
County Bar library,	.	300.00
Expense of tax warrant,	.	50.00
Attorney's fees,	.	25.00
Indexing and arranging files, Court of Com-	.	
mon Pleas and Superior Court,	.	832.00
Balance to new account,	.	11,327.64
		\$59,855.02

Balance in treasury,	.	\$11,327.64
Indebtedness of the county,	.	45,000.00
Rate of interest, 4 per ct.		

*Abstract of Statement of Receipts and Expenses for NEW HAVEN County,
for the year ending June 30, 1887, as returned by Hiram Jacobs, Albert
B. Dunham and Cecil A. Burleigh, County Commissioners.*

<i>Dr.</i>	CASH.	
To amount of cash on hand, June 30, 1886,	.	\$4,942.07
To amount received:		
From Jail, (see jail report for items),	.	30,372.32
Licenses, 5 per cent.,	.	8,753.60
" transfers,	.	239.00
" revocations,	.	125.52
" forfeited bonds and interest,	.	336.00
Rent of law chambers,	.	3,121.75
Total,	.	\$47,890.26

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jail, (see jail report for items),	.	\$22,097.43
County home expenses,	.	1,111.25
County commissioners,	.	2,881.29
" treasurer,	.	300.00
" auditors,	.	110.00
Court house repairs,	.	1,559.89
" furnishings,	.	440.61
" incidentals,	.	124.70
Law chamber repairs,	.	110.63
License books and blanks,	.	123.78
Stationery,	.	14.84
Printing and advertising,	.	64.50
Envelopes and stamps,	.	27.80
Office incidentals,	.	33.60
Water,	.	66.30
Gas,	.	12.24
Coal,	.	320.75
Court record,	.	15.50
Attorney fees,	.	310.00
Revocation costs,	.	492.59
Engineer,	.	680.00
Janitor,	.	938.00
Interest on loan,	.	967.01
Payment on note,	.	10,000.00
Balance to new account,	.	5,087.55
		<u>\$47,890.26</u>

Balance in treasury,	.	\$5,087.55
Indebtedness of the county,	.	12,500.00
Rate of interest, 5 per cent.		

*Abstract of Statement of Receipts and Expenses for NEW LONDON County,
for the year ending June 30, 1887, as returned by E. A. Morgan,
N. H. Ayer and A. Hurlbut, County Commissioners.*

<i>Dr.</i>	CASH.	
To amount of cash on hand June 30, 1886, . . .		\$1,689.61
To amount received:		
From Jail, (see jail report for items), . . .		8,248.67
License, 5 per cent.,		1,673.95
County home,		1,420.08
Material sold,		2.50
Loans,		4,000.00
Total,		<u>\$17,034.81</u>

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jail, (see jail report for items), . . .		\$7,459.75
County homes,		3,568.12
" commissioners,		1,567.08
" treasurer,		200.00
" auditors,		27.00
Court houses,		321.50
Repairs,		332.21
Old dues,		6.00
License revocation,		168.49
Stationery and printing,		102.64
Interest,		500.00
Insurance,		35.20
Attorney's fees,		50.00
Insane prisoners,		18.15
Law library,		200.00
Balance to new account,		2,478.67
		<u>\$17,034.81</u>

Balance remaining in treasury,	\$2,478.67
Indebtedness of the county,	13,000.00
Rate of interest, 5 per cent.	

*Abstract of Statement of Receipts and Expenses for FAIRFIELD County,
for the year ending June 30, 1887, as returned by John O. Page, Charles
B. Wheeler and George M. Olmstead, County Commissioners.*

<i>Dr.</i>	CASH.	
To amount on hand June 30, 1886,	\$13,362.56	
To amount received:		
From Jail, (see jail report for items),	16,412.86	
License, 5 per cent.,	5,706.48	
Forfeited bonds,	300.00	
County home,	1,478.86	
County tax,	2,782.44	
Use of telephone,	5.00	
Total,	\$40,048.20	

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jails, (see jail report for items),	\$15,246.20	
County home,	2,166.39	
" commissioners,	2,406.45	
" treasurer,	175.00	
" auditors,	42.30	
Rents,	1,065.63	
Judicial expenses,	380.00	
Court house,	505.81	
Janitors,	618.00	
Insurance,	25.00	
Commissioner's court,	208.11	
Postage,	29.72	
Key fees,	774.50	
Stationery and printing,	205.07	
Law Library,	300.00	
Miscellaneous bills,	393.35	
Balance to new account,	15,506.67	
	<u>\$40,048.20</u>	

Balance in treasury,	\$15,506.67
Indebtedness of the county,	538.39
Due from other than jail accounts,	588.00

Abstract of Statement of Receipts and Expenses for WINDHAM County, for the year ending June 30, 1887, as returned by A. A. Stanton, E. H. Hall and John Kelly, County Commissioners.

<i>Dr.</i>	CASH.	
To amount of cash on hand, June 30, 1886,	.	\$681.47
To amount received:		
From Jail, (see jail report for items),	.	6,426.87
License, 5 per cent.,	.	469.97
Suit on bond,	.	75.00
Rent of basement of court house,	.	19.00
County home,	.	1,805.43
Borrowed money,	.	13,236.48
Total,	.	\$22,714.22

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jail, (see jail report for items),	.	\$4,988.37
County home,	.	8,511.67
" commissioners,	.	69.65
" treasurer,	.	40.00
" auditors,	.	15.00
License,	.	226.79
License books,	.	15.00
Insurance,	.	45.00
Interest,	.	525.29
Printing,	.	23.75
Telephone at court house,	.	40.00
Court record books and rent,	.	104.08
Janitor court house,	.	7.92
Outstanding orders, 1883-6,	.	7,325.73
All other expenses,	.	4.25
Balance to new account,	.	771.72
		<u>\$22,714.22</u>

Balance remaining in treasury,	.	\$771.72
Indebtedness of the county,	.	13,500.00
Rate of interest, 5 per cent.		

*Abstract of Statement of Receipts and Expenses for LITCHFIELD County,
for the year ending June 30, 1887, as returned by Lyman Dunning,
S. N. Pettibone and J. K. Judson, County Commissioners.*

Dr.

CASH.

To amount of cash on hand, June 30, 1886,	.	.	\$4,919.29
To amount received:			
From Jail, (see jail report for items),	.	.	4,658.12
Licenses, 5 per cent.,	.	.	494.17
Towns, for county home,	.	.	713.63
State, " "	.	.	442.49
Savings bank interest,	.	.	71.80
Outstanding orders,	.	.	873.79
Total,	.	.	<u>\$12,173.27</u>

CASH.

Cr.

By amount paid:

On account of Jail, (see jail report for items),	.	\$5,107.70
County homes,	.	2,069.41
" treasurer,	.	100.00
" auditors,	.	10.00
Counsel fees,	.	25.00
Printing and stationery,	.	81.72
Freights,	.	57.81
Repairs on jail,	.	56.97
Rent court house,	.	380.00
Repairs temporary court room,	.	12.01
Insurance,	.	7.50
Key fees,	.	101.50
Capturing prisoners,	.	40.74
Special county meetings,	.	358.40
Interest on temporary loan,	.	6.40
Outstanding orders,	.	521.58
Other expenses,	.	35.00
Balance to new account,	.	3,201.53
		<u><u>\$12,173.27</u></u>

Balance remaining in treasury, . . . \$3,201.53

*Abstract of Statement of Receipts and Expenses for MIDDLESEX County,
for the year ending June 30, 1887, as returned by Delos D. Brown,
Charles L. Griswold and A. M. Wright, County Commissioners.*

<i>Dr.</i>	CASH.	
To amount of cash on hand, June 30, 1886,	.	\$852.01
To amount received:		
From Jail, (see jail report for items),	.	2,160.26
Licenses, 5 per cent.,	.	703.03
" transfers,	.	9.00
County tax,	.	12,324.51
County home,	.	1,893.30
Temporary loan,	.	4,000.00
Total,	.	<u>\$21,942.11</u>

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jail, (see jail report for items),	.	\$5,914.83
County home (building),	.	7,892.52
" " (steam heating),	.	635.00
" " (expenses),	.	2,859.62
" commissioners,	.	701.75
" treasurer,	.	158.33
Clerk and office expenses,	.	499.87
Repairs on court house,	.	91.51
Insurance,	.	110.58
Printing,	.	83.37
Notes and interest paid,	.	2,363.17
Miscellaneous expenses,	.	95.66
Balance to new account,	.	535.90
		<u>\$21,942.11</u>

Balance remaining in treasury,	.	\$535.90
Indebtedness of the county,	.	7,000.00
Rate of interest, 5 per ct.		

*Abstract of Statement of Receipts and Expenses for TOLLAND County,
for the year ending June 30, 1887, as returned by M. P. J. Walker,
George C. Hutchinson and Louis Philipp, County Commissioners.*

<i>Dr.</i>	CASH.	
To amount of cash on hand June 30, 1886, . . .		\$249.78
To amount received:		
From Jail, (see jail report for items), . . .		1,511.97
License, 5 per cent., . . .		326.15
forfeited bonds, . . .		329.96
Board of prisoners, 1885, . . .		119.74
County tax, 1886, . . .		4,130.83
" " 1887, . . .		5,181.82
Water rent, . . .		25.00
Commissioners, . . .		1,000.00
Total, . . .		<u>\$12,880.25</u>

	CASH.	<i>Cr.</i>
By amount paid:		
On account of Jail, (see jail report for items), . . .		\$2,239.50
County home, purchase, . . .		2,500.00
" " repairs, . . .		138.11
" " expenses, . . .		400.00
" commissioners, . . .		699.54
" treasurer and clerk of court, salary, . . .		50.00
" auditors, . . .		26.50
Repairs of county buildings, . . .		113.67
" court house, . . .		370.15
License book, . . .		15.00
Collection of forfeited license bond, . . .		38.86
Insurance, . . .		7.50
Water rent, . . .		75.00
Filling ice-house, . . .		12.00
Stamps, stationery, etc., . . .		5.20
Interest, . . .		233.52
Loans paid, . . .		5,536.63
Balance to new account, . . .		419.07
		<u>\$12,880.25</u>

Balance in treasury, \$419.07

ABSTRACT

OF THE

REPORTS OF COUNTY COMMISSIONERS,

FOR THE YEAR ENDING JUNE 30, 1887,

IN RELATION TO

LICENSES;

SHOWING THE NUMBER AND CHARACTER OF LICENSES GRANTED
AND THE AMOUNTS RECEIVED THEREFOR IN EACH COUNTY,
FROM THE SEVERAL TOWNS THEREIN.

TOWNS.	No. of Liquor Licenses.	Amounts Received from Liquor Licenses.	No. of Beer Licenses.	Amounts Received from Beer Licenses.	No. of Drug- gist's Licenses.	Amounts Received from Druggist's Licenses.	Total Number of Licenses.	Total Amounts Received.
HARTFORD CO.								
Hartford,	255	\$48,799.00	15	\$1,500.00	28	\$1,400.00	298	\$51,699.00
Avon,	3	300.00	..	..	..	..	3	300.00
Berlin,	4	400.00	..	..	..	..	4	400.00
Bristol,	13	2,600.00	..	..	4	200.00	17	2,800.00
Burlington,	5	500.00	..	..	..	..	5	500.00
Canton,	7	700.00	..	..	..	..	7	700.00
East Granby,	4	334.00	..	..	..	..	4	334.00
East Hartford,	4	800.00	..	..	2	100.00	6	900.00
East Windsor,	10	1,750.00	..	..	..	..	10	1,750.00
Enfield,	21	3,988.00	1	100.00	4	162.00	26	4,250.00
Farmington,	9	1,750.00	..	..	2	22.00	11	1,772.00
Granby,	1	100.00	..	..	..	..	1	100.00
Manchester, . . . . .	..	..	..	..	5	60.00	5	60.00
New Britain,	80	15,735.00	11	1,100.00	8	362.00	99	17,197.00
Plainville, . . . . .	..	..	..	..	2	20.00	2	20.00
Simsbury,	5	441.50	..	..	1	10.00	6	451.50
Southington,	17	3,400.00	3	250.00	3	150.00	23	3,800.00
Suffield,	4	525.00	..	..	..	..	4	525.00
Wethersfield, . . . . .	..	..	..	..	2	20.00	2	20.00
Windsor,	6	963.00	..	..	1	10.00	7	973.00
Windsor Locks,	9	900.00	..	..	1	50.00	10	950.00
Total,	457	\$83,985.50	30	\$2,950.00	63	\$2,566.00	550	\$89,501.50

TOWNS.	No. of Liquor Licenses.	Amounts Received from Liquor Licenses.	No. of Beer Licenses.	Amounts Received from Beer Licenses.	No. of Drug- gist's Licenses.	Amounts Received from Druggist's Licenses.	Total Number of Licenses.	Total Amounts Received.
NEW HAVEN CO.								
New Haven,.....	418	\$80,055.00	12	\$1,150.00	45	\$1,172.00	475	\$82,377.00
Beacon Falls,....	3	300.00	...	...	...	...	3	300.00
Branford,.....	19	3,080.00	1	100.00	3	30.00	23	3,210.00
Cheshire,.....	2	167.00	1	25.00	2	32.00	5	224.00
Derby,.....	95	18,640.00	1	100.00	6	300.00	102	19,040.00
East Haven,....	3	192.00	3	125.00	...	...	6	317.00
Guilford,.....	2	70.00	...	...	1	10.00	3	80.00
Hamden,.....	6	1,100.00	...	...	1	10.00	7	1,110.00
Meriden,.....	109	21,445.00	4	325.00	10	459.00	123	22,229.00
Milford,.....	8	1,355.00	...	...	3	105.00	11	1,460.00
Naugatuck,.....	26	4,850.00	...	...	2	20.00	28	4,870.00
Orange,.....	20	2,085.00	1	100.00	1	10.00	22	2,195.00
Oxford,.....	2	200.00	...	...	...	...	2	200.00
Seymour,.....	13	1,300.00	...	...	2	100.00	15	1,400.00
Wallingford,....	22	4,345.00	...	...	4	79.00	26	4,424.00
Waterbury,.....	161	30,590.00	5	417.00	15	629.00	181	31,636.00
Total,.....	909	\$169,774.00	28	\$2,342.00	95	\$2,956.00	1,032	\$175,072.00
NEW LONDON CO.								
New London,....	58	\$10,759.00	5	\$450.00	4	\$104.00	67	\$11,313.00
Norwich,.....	88	17,436.00	8	867.00	11	530.00	107	18,833.00
Colchester,.....	11	1,100.00	...	...	1	50.00	12	1,150.00
Groton,.....	...	...	...	...	3	36.00	3	36.00
Preston,.....	2	200.00	2	100.00	...	...	4	300.00
Sprague,.....	8	1,584.00	...	...	...	...	8	1,584.00
Stonington,.....	1	67.00	1	34.00	3	36.00	5	137.00
Total,.....	168	\$31,146.00	16	\$1,451.00	22	\$756.00	206	\$33,353.00
						For transfers,		4.00
								\$33,357.00
FAIRFIELD CO.*								
Bridgeport,.. . .	317	\$56,321.00	20	\$1,465.00	19	\$833.00	356	\$55,688.05
Brookfield,.....	3	258.00	...	...	...	...	3	245.10
Darien,.....	4	400.00	...	...	...	...	4	380.00
Danbury,.....	73	14,027.00	2	300.00	9	374.00	84	13,965.95
Fairfield,.....	8	1,500.00	1	75.00	1	12.00	10	1,507.65
Greenwich,.....	30	5,342.67	1	100.00	2	24.00	33	5,193.34
Huntington,.....	10	1,000.00	...	...	1	50.00	11	997.50
New Canaan,.....	...	...	...	...	1	10.00	1	9.50
Newtown,.....	13	2,600.00	1	150.00	1	10.00	15	2,622.00
Norwalk,.....	58	10,858.00	2	175.00	6	72.00	66	10,549.75
Redding,.....	1	100.00	1	50.00	...	...	2	142.50
Stamford,.....	71	13,359.00	5	525.00	8	134.00	84	13,317.10
Stratford,.....	12	2,105.00	...	...	1	50.00	13	2,047.25
Westport,.....	9	1,800.00	...	...	1	50.00	10	1,757.50
Total,.....	609	\$109,670.67	33	\$2,840.00	50	\$1,619.00	692	\$108,423.19
						Amount (5 per cent.) paid County Treasurer,		5,706.48
						Total amount received,.....		\$114,129.67

* The figures in the column headed "Total Amounts Received," in Fairfield county, give the amounts paid towns after deducting 5 per cent.

TOWNS.	No. of Liquor Licenses.	Amounts Received from Liquor Licenses.	No. of Beer Licenses.	Amounts Received from Beer Licenses.	No. of Drug- gist's Licenses.	Amounts Received from Druggist's Licenses.	Total Number of Licenses.	Total Amounts Received.
WINDHAM CO.								
Eastford,	3	\$300.00					3	\$300.00
Killingly,	9	1,780.00			5	\$149.41	14	1,929.41
Plainfield,					2	24.00	2	24.00
Putnam,					3	36.00	3	36.00
Sterling,	2	200.00					2	200.00
Windham,	34	6,390.00	1	\$100.00	6	300.00	41	6,790.00
Total,	48	\$8,670.00	1	\$100.00	16	\$509.41	65	\$9,279.41
LITCHFIELD CO.								
Litchfield,	1	\$200.00	3	\$250.00	3	\$105.00	7	\$555.00
Barkhamsted,	1	100.00			1	10.00	2	110.00
Canaan,	2	200.00			1	50.00	3	250.00
Kent,	1	100.00					1	100.00
New Hartford,	4	800.00			1	50.00	5	850.00
New Milford,	8	1,600.00	1	100.00	2	100.00	11	1,800.00
North Canaan,					1	12.00	1	12.00
Norfolk,					1	12.00	1	12.00
Plymouth,					2	24.00	2	24.00
Salisbury,					3	30.00	3	30.00
Sharon,	3	300.00			1	10.00	4	310.00
Thomaston,	8	1,600.00	2	200.00	3	150.00	13	1,950.00
Torrington,	10	2,000.00	1	100.00	2	100.00	13	2,200.00
Washington,					1	12.00	1	12.00
Watertown,					1	12.00	1	12.00
Winchester,	7	1,400.00			5	237.50	12	1,637.50
Woodbury,					2	24.00	2	24.00
Total,	45	\$8,300.00	7	\$650.00	30	\$938.50	82	\$9,888.50
MIDDLESEX CO.								
Middletown,	36	\$9,555.00	3	\$525.00	6	\$288.00	45	\$10,368.00
Chatham,					1	12.00	1	12.00
Clinton,					1	12.00	1	12.00
East Haddam,	4	900.00	1	75.00			5	975.00
Essex,					1	12.00	1	12.00
Portland,	9	2,600.00	1	15.00			10	2,615.00
Total,	49	\$13,055.00	5	\$615.00	9	\$324.00	63	\$13,994.00
TOLLAND CO.								
Coventry,					1	\$12.00	1	\$12.00
Ellington,	2	\$200.00	2	\$75.00			4	275.00
Somers,	3	300.00					3	300.00
Stafford,					3	36.00	3	36.00
Vernon,	27	5,400.00	3	300.00	4	200.00	34	5,900.00
Total,	32	\$5,900.00	5	\$375.00	8	\$248.00	45	\$6,523.00

SUMMARY.

COUNTIES.	No. of Liquor Licenses.	Amounts Received from Liquor Licenses.	No. of Beer Licenses.	Amounts Received from Beer Licenses.	No. of Drug- gist's Licenses.	Amounts Received from Druggist's Licenses.	Total Number of Licenses.	Total Amounts Received.
Hartford,	457	\$83,985.50	30	\$2,950.00	63	\$2,556.00	550	\$89,501.50
New Haven, ..	909	169,774.00	28	2,342.00	95	2,956.00	1,032	175,072.00
New London, .	168	31,146.00	16	1,451.00	22	756.00	206	*33,353.00
Fairfield,	609	109,670.67	33	2,840.00	50	1,619.00	692	114,129.67
Windham, . . .	48	8,670.00	1	100.00	16	509.41	65	9,279.41
Litchfield, . . .	45	8,300.00	7	650.00	30	938.50	82	9,888.50
Middlesex, . . .	49	13,055.00	5	615.00	9	324.00	63	13,994.00
Tolland,	32	5,900.00	5	375.00	8	248.00	45	6,523.00
Total,	2,317	\$430,501.17	125	\$11,323.00	293	\$9,916.91	2,735	\$451,741.08

* \$4 was returned in New London county as received from transfer of license.

REPORT
OF THE
ADJUTANT-GENERAL,
STATE OF CONNECTICUT,
TO THE
COMMANDER-IN-CHIEF,
DECEMBER 1, 1887.

PRINTED BY ORDER OF THE LEGISLATURE.

HARTFORD, CONN.:
PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.
1888.

REPORT.

STATE OF CONNECTICUT,
ADJUTANT-GENERAL'S OFFICE,
HARTFORD, Dec. 1, 1887.

To His Excellency, PHINEAS C. LOUNSBURY,
Governor and Commander-in-Chief:

SIR,—I have the honor to submit the following report of this department for the period from July 1, 1886 (date of last report, made by my predecessor), to date hereof:

It has been decided that this report be brought down to date instead of as formerly covering a period co-extensive with the State fiscal year regulated by statute. By making report for a period approximating to the calendar year, it becomes possible to communicate to Your Excellency, and through you to the General Assembly (when in session) and the public, information of recent date, embracing a period of more general activity in the military establishment. A continuance of the practice of making report to July 1st in each year would leave the encampment of 1888, and all transactions of the military departments for the balance of that year, unreported officially to you until about one year later, and, owing to the sessions of the General Assembly being biennial, it could not be referred for action by that body until 1891. This date of report would also make it incumbent upon each successive Adjutant-General to report the transactions and experiences of the last six months of his predecessor's term of office. The absurdity of the situation makes the change necessary in the interest of common sense.

ORGANIZATION.

The active militia of the State, designated by law the Connecticut National Guard, now consists of thirty-seven companies of infantry, two platoons of light artillery, and four machine-gun platoons. The

infantry and machine-gun platoons are organized as four regiments and a battalion. The machine-gun platoons are now attached to the regiments as an integral part thereof. The two platoons of light artillery comprise a battery. The entire force is organized as a brigade under command of a Brigadier-General, and the organization of the respective regiments is as follows :

First Regiment, eight companies, one machine-gun platoon ; Second Regiment, ten companies, one machine-gun platoon ; Third Regiment, eight companies, one machine-gun platoon ; Fourth Regiment, eight companies, one machine-gun platoon ; Fifth Battalion, three companies (colored men).

The total membership at November muster, 1887, was 176 officers and 2,337 enlisted men ; total, 2,513. The aggregate at annual muster November, 1886, was 2,469, showing a gain during the year of 44.

The organization is the same as last reported, the only change having been the disbandment of Co. A, Third Regiment (Mystic Bridge), in August, 1886, and the acceptance of a company in New London in place thereof, designated by the same letter. The disbandment of the company at Mystic Bridge was made in consequence of the report of a court of inquiry, which showed conclusively that the company was in bad condition, and that the interests of the service would be best served by its disbandment.

The General Assembly, at the last session, enacted a law slightly changing the personnel of the force by adding to it a brigade trumpeter, a chief trumpeter to each regimental non commissioned staff, a signal-sergeant and a chief trumpeter to the non-commissioned staff of the battalion, and to each company of infantry a trumpeter. The act also legalized the machine-gun platoons, which were organized in 1884 by authority of orders from this office, and now have a proper legal status as a part of the military establishment. These platoons are armed with the Gatling gun, and are considered an important and effective branch of the service, particularly adapted to the quelling of riots.

With the present organization — and the maximum membership of companies of infantry limited by orders, as now, to 68 — the force could be increased to 2,809 officers and men, and with the addition of three companies, which could be done without further legislation, as the law now permits forty companies of infantry, the force might number 3,013, an amply sufficient military police force in time of

peace. Three regiments entitled to ten companies each have but eight, but the fact that the current military appropriations are based on the present number of companies renders it impracticable to organize additional companies. If the organization of the U. S. Army is changed by action of Congress, as is probable, to the three battalion system, or regiments composed of twelve companies, corresponding changes in our organization should be made by legislative enactment.

Many changes in the personnel of the force have occurred since July 1, 1886. Thirty-three officers have resigned, and eleven have been discharged for cause; of these the appointments of eight were revoked, and in three cases the officers had been previously commissioned, which commissions were annulled. Thirty-five enlisted men were promoted to commissioned officers, and thirteen officers were appointed from civil life. No deaths of officers have occurred. One thousand and seven enlisted men have been discharged for reasons as follows: For expiration of term of service, 401; non-residence, 410; disability, 32; request of commanding officers and disbandment of company, 50; benefit of the service, 60; dishonorably (in accordance with sentences of field-officers' courts-martial), 42; died, 12. There were 1,304 enlistments during the same period, a liberal proportion of which were reënlistments. The dishonorable discharges were mainly for desertion, in all cases of which the man tried had been absent from all drills and parades for six months. There were but few cases of flagrant misconduct. Many applications for the discharge of men for other than regular reasons have been denied, it being the policy of this office to hold men to the full obligations of their enlistment, and to discourage applications for the discharge of men until regular means of discipline provided in the law and regulations have been enforced. The large number of discharges for non-residence would imply that sufficient care is not exercised to enlist only men whose occupations are such as to make them permanent residents. The term of service of 436 men will expire prior to January 1, 1889.

ARMAMENTS AND CAMP EQUIPAGE.

The armament of the Guard remains the same as last reported; and no change is at present recommended. It is practically decided that the calibre of the rifle, which is .45, and the consequent weight of the ball, now in use by the U. S. Army, will soon be materially reduced, and the quantity of powder slightly increased. This increases the

range and accuracy of the rifle while reducing the weight of ammunition, thus enabling the soldier to carry more of the latter, an important item, with present capacity for rapid firing. It is of the greatest importance that when this change is made by the U. S. Army the same change shall be made by this State. A few stand of newest pattern Springfield B. L. R. muskets, calibre .45, with latest improved sights and wind-gauge were drawn from the general government last summer and issued to each regimental and the battalion headquarters, with a view to encouraging team rifle practice between the different organizations. The Gatling guns owned by the State are of old pattern and should be exchanged when the new calibre rifle is adopted.

The camp equipage is in generally good condition. Some of the canvas is, however, old and should be replaced. The purchase, by drawing from the general government, of 100 each wall and common or "A" tents, was found necessary for the last encampment to accommodate the troops without crowding. The old pattern common tent affords too little space for the health and comfort of the men, and it would be desirable to obtain the new "improved common with wall" tent for the brigade as soon as practicable, or remodel the present "A" tents to that pattern.

ENCAMPMENTS AND PARADES.

The entire brigade was encamped in 1886 for six days, beginning August 23d. The health of the camp was good, and the weather being exceptionally fine, a full week's work was accomplished. A series of field manœuvres, projected by General Graham, the brigade commander, from plans prepared by the brigade engineer, was carried out; a full account of the operations, described in detail by each subordinate commander and the brigade engineer, is included with General Graham's report herewith. At the request of the Commander-in-Chief to the Honorable Secretary of War, U. S., 1st Lieut. Charles A. L. Totten, 4th U. S. Artillery, was detailed to inspect the troops during the week, and 1st Lieut. Samuel R. Jones, same regiment, to instruct details of men in Heavy Artillery drill at the siege-gun and mortar battery. Each officer was present the entire week. Lieut. Totten devoted much time to his duties, which involved frequent tours of camp by day and night. Extracts from Lieut. Totten's report to the Adjutant-General, U. S. A., were subsequently published in General Orders from this office. The suggestions, criticisms, and recommendations contained therein are admirable and have been of

much value to the troops. Owing to delay in arrival of guns and materials, the water battery on the southeast front of the camp ground was not ready for use, but the mortars were placed in position temporarily, and Lieut. Jones was enabled to instruct the details in handling them. The battery was built and guns mounted in the fall. The encampment was considered a very successful tour of duty. 2,283 members of the brigade performed duty during the week; the absentees numbered 171; total, 2,454; per cent. present, 93.03.

The usual May parade by company and platoon occurred in 1887, the duty performed, as prescribed in orders from this office, being rifle practice, guard duty, and skirmish drill; the attendance throughout the brigade was very good, 89.84 per cent., but in several companies there were too many absentees. It is evident that the May parade by company gives good opportunity for work in the field in practicing the lessons learned in the armory during the drill season. Full reports of all commanding officers are given herewith.

An Act was passed by the General Assembly, at the January session, providing for the attendance of the brigade at the dedication of the Soldiers' and Sailors' monument, at New Haven, June 17th, in place of the regular May parade required by statute, and the sum of \$3,500 was appropriated for transportation. The respective commanding officers being unwilling to omit the May parade, it was finally arranged to make an additional parade at New Haven, the members of companies and platoons volunteering their services without pay. This was the first appearance of the brigade in the new uniform, and it elicited favorable comment, especially by reason of the solid appearance of the troops. There were present at the review by yourself, General W. T. Sherman, Lieut.-General P. H. Sheridan, Major-General Alfred H. Terry, U. S. A., Rear-Admiral Luce, and other officers of the North Atlantic squadron, U. S. N. In spite of vexatious delays, incident to the moving of large parades, and the excessive heat, all the troops behaved admirably, reflecting great credit upon themselves and the State, winning the commendation of the officers of the regular forces, and the thousands of spectators. Every organization of the Connecticut National Guard paraded, and the four companies of Governor's Guards, who acted as your personal escort. The percentage of the brigade present for duty was 82.87, in a total reported membership of 2,607, showing a good attendance for a voluntary parade.

The entire brigade was assembled at the State camp-ground August 22, 1887, for six days' encampment under the law, in accordance with orders from this office. The troops arrived in camp in a pouring rain-fall, and the inclement weather for the first three days was very discouraging. As much time was devoted to the routine of camp duty as the weather would permit; the daily ceremonies of guard-mounting and dress-parade were performed, and when not prevented by the weather a full day's routine was observed.

No field manœuvres were attempted at the encampment this year. However interesting and instructing to the officers these manœuvres may be, they are not, in my opinion, desirable at encampments of the National Guard. The time allowed by law for encampment is so short that it can be better occupied in matters of more immediate importance.

By your direction no regiment was detailed to receive you at the railroad station and escort you to camp, nor was the Brigade drawn up in line within the camp limits on your arrival there, as has been customary in this State for many years on the arrival of the Commander-in-Chief. The troops were thereby enabled to devote the time usually occupied in the ceremony, and preparation therefor — at least one-half day — to regular camp duties. This, and the omission of the usual escort to your Excellency by the two companies of Governor's Foot Guard, on the day of the review, while making less show, rendered the encampment more of a working one, and much more nearly in accordance with the regulations and customs of the United States army.

It cannot be too strongly impressed upon the entire brigade that encampments are held for instruction, and at a considerable expense to the State, while a reasonable latitude for pleasure may be allowed when off duty. The worst feature of the encampment was the noise after "taps," which prevailed to a great extent, and which can only be obviated by proper attention on the part of company officers.

The review by Your Excellency, on Friday, August 26th, was a brilliant spectacle, and showed conclusively that in forms of ceremony the State troops are not lacking in efficiency. This encampment was certainly an improvement over any former one, in my observation, in the very important essentials of guard duty, skirmish drill, and saluting. Much credit for the improvement in guard duty and saluting is due to First Lieutenants Charles A. L. Totten and Alexander B. Dyer, 4th U. S. Artillery, who were detailed for duty at camp as

instructors in guard duty; the officers and men of the National Guard detailed for that duty were fortunate in receiving the benefit of the experience of those officers. First Lieutenant William R. Hamilton, 5th U. S. Artillery, detailed by Adjutant-General Drum, was assigned to duty as instructor in heavy artillery drill, and gave valuable instruction in this branch of military tactics to the company detailed for duty at the siege-gun and mortar battery. Officers of the U. S. Army have heretofore been detailed to *inspect* instead of *instruct*, and the detail of these officers, made by the Adjutant-General of the army at your request, and their intelligent and thorough methods, were of the greatest value to the National Guard, and more than realized my expectations. The services of these officers were so valuable that it is hoped the exigencies of the service may permit of the detail of the same officers at the encampment of 1888.

A percentage of 91.89 of the force performed duty for some period during the week; there were 2,370 officers and men present, absent 209: total membership, 2,579. There was a too large proportion of men in camp for a less period than the entire week, those men being principally in some companies of the First and Second Regiments. Although the attendance of men at camp for one or two days, or less than one week, where business or good reasons prevent attendance for the entire week, is evidence of their interest and desire to perform duty, all encampments are held by authority of law, and six days' duty in the field is required of every officer and enlisted man; there should therefore be no men absent at any time during the week. Men should not be enlisted whose occupation renders it probable that they may not perform full tours of duty when ordered.

Attention is respectfully invited to the reports of Brigadier-General Charles P. Graham, brigade commander, regarding the duty performed by the National Guard during 1886 and 1887, transmitted herewith.

It has become the practice in some organizations to enlist many recruits just prior to the encampments, with the result that a very large proportion of men appear in camp deficient in the first rudiments of a soldier's education. Much valuable time is thus necessarily required to be used by officers in teaching men lessons which should be imparted in the drill-hall. Being of the firm opinion that no soldier can render satisfactory service to the State in the field until first well instructed in the manual of arms and the school of the soldier, orders were issued from this office that recruits enlisted after June 1st, in any year, shall not be borne upon the rolls for duty at

the encampment of that year. Recruits enlisted prior to that date should be sufficiently well instructed in the primary duties of the soldier to receive the benefit of intelligent instruction in camp duties.

CENTENNIAL CELEBRATION OF THE ADOPTION OF THE UNITED STATES
CONSTITUTION.

In accordance with the recommendation of the Hon. Henry C. Robinson, Commissioner appointed to represent this State in the arrangements for celebrating the centennial anniversary of the adoption of the Constitution, at Philadelphia, Pa., September 17, 1887, the General Assembly provided that your Excellency could, at your discretion, designate a regiment, and a platoon of Artillery, of the National Guard, and a company of the Governor's Foot Guard, to represent this State in the military display, and appropriated the sum of eleven thousand five hundred dollars for the expenses of the representation from this State. It was thought that the regiments and battery of the National Guard would receive more benefit by the regular tour of duty at encampment; this, in connection with the difficulty and discomfort always attending the transportation and temporarily quartering of large bodies of troops, finally induced the decision to send only a company of Governor's Foot Guard, and the 1st Company, commanded by Major Kinney, was so designated.

The parade of troops from the various states made a brilliant spectacle. The company from Connecticut occupied a conspicuous position in the line accompanying yourself and staff, and was the recipient of unstinted applause and flattering praise from military critics and the multitude of spectators. The fine appearance of the military delegation, and the fact that less than one-third the sum appropriated for the celebration was expended, fully vindicated the wisdom of your decision in the matter. The total expense of the delegation was \$3,136.85, leaving the balance of appropriation remaining unexpended \$8,363.14.

The civic representation from this State included the Commissioner, the Judges of the Superior and Supreme Courts, State Officers, and the committees of the Senate and House of Representatives. The entire representation, both civic and military, was one of which the State has good reason to be proud. Quarters were secured at the Hotel Lafayette, and accommodations there were entirely satisfactory.

The celebration was in every respect a creditable one, and too much praise cannot be given to the able management by the various

committees, prominent among whom were Gen. Knowlton and Col. Wiedersheim, to whom the Connecticut delegation are indebted for many courtesies.

INSPECTION AND MUSTER.

The annual inspection and muster of the National Guard in 1886 showed a total membership of 2,412, a gain during the year next preceding of 99, principally in the 1st, 2d, and 3d Regiments. The number present was 2,179, or 90.34 per cent. of the total force, being a gain of 3.01 per cent. over the percentage present at muster in 1885.

At the inspection and muster last month, 173 officers and 2,071 men paraded out of the total membership of 2,513; there were absent 3 officers and 266 men. The per cent. present was 89.30, a slight falling off from the former year, with the force increased by 101 men, the increase in membership being mainly in the same regiments as in the previous year.

The present and absent in each organization, with the per cent. present, was as follows:

First Regiment,	present, 517; absent, 44; per cent. present, 92.16.
Second Regiment,	present, 630; absent, 43; per cent. present, 93.61.
Third Regiment,	present, 403; absent, 79; per cent. present, 83.61.
Fourth Regiment,	present, 463; absent, 63; per cent. present, 88.02.
Fifth Battalion,	present, 146; absent, 37; per cent. present, 79.78.
Battery A,	present, 72; absent, 3; per cent. present, 96.00.

The attendance, as above, may be considered satisfactory, except in the Third and Fourth Regiments and the Fifth Battalion, in each of which a too large proportion of members were absent. In Companies B and I, Third Regiment, there were respectively 13 and 15 absentees, most of whom were accounted for as "out of town." In Companies B and F, Fourth Regiment respectively, 10 men were absent; and in Company I, 15. In the Fifth Battalion Company A had 12 men absent, and Company C 19; the absentees in Company A were reported as "out of town" 8, "without leave" 3, "sick" 1; and in Company C, 8 were "out of town," 8 "absent without leave," and 3 "sick."

The large number of absentees in these companies indicates that many men have become unavailable for military duty by reason of change of residence, or occupation requiring absence from town, or else willfully absented themselves from muster,—a condition of affairs which requires immediate attention on the part of commanding officers. Three companies in the brigade are below the minimum number in

membership — 52 ; Companies C (Norwich), and F (Danielsonville), Third Regiment, having but 46 and 49 men respectively, and Company K, Fourth Regiment, has but 48 members. The condition of these companies, in this respect, would seem to make recruiting an imperative necessity to place them in an efficient condition ; they show no increase in membership during the past year. Several other companies in the brigade are quite low in membership.

The inspections of companies and machine-gun platoons were made by their respective battalion commanders, except in the Third Regiment, and one company in the First Regiment, with the result that the ratings given are not uniform.

The law requires that all inspections be made by the Brigade Inspector ; this has been found impracticable within the time required, but I am firmly convinced that, in order to secure uniformity, all inspections should be made by an officer not attached to the commands inspected.

At the request of Colonel Haven, Third Regiment, made by reason of business engagements, he was excused from mustering several companies of his regiment ; two (F and G) were inspected by Major Bidwell, and Companies B, C, and E, by Major Allen, Brigade Inspector, assigned to that duty in orders issued from this office.

RIFLE PRACTICE.

The list of officers and men qualifying under the regulations entitling them to the State decorations, submitted by the Brigade Inspector of Rifle Practice, showed the following qualifications in each organization in 1886 :

	Sharp-shooters.	First-Class Marksmen	Marksmen.	Total.
Brigade Staff, . . .	3	1	.....	4
First Regiment, . . .	19	42	65	126
Second Regiment, . . .	41	68	77	186
Third Regiment, . . .	12	21	43	76
Fourth Regiment, . . .	40	44	89	173
Fifth Battalion, . . .	7	5	11	23
Total,	122	181	285	588

This is a slight increase over the number qualifying in the previous year, the addition being principally in the Second and Fourth Regiments, each of which show gains. The Third Regiment shows a slight falling off, and in the First Regiment less men qualified than in any year since 1881; this may be from either a lack of interest, or the strict enforcement of the rules, or both.

The report of the Brigade Inspector of Rifle Practice for the past season has not been received, and I am informed will not probably be ready for some two or three months, the cause for which delay is attributed to the incomplete and inaccurate returns received from some regimental inspectors of rifle practice.

The system of issuing as a decoration for qualification in rifle practice, a badge for first year's qualification and a bar for each subsequent qualification, has been continued, and no change is contemplated except, possibly, the issue of a special decoration to winners for five or ten years, which will obviate their wearing the long string of bars accumulated during that period. The system of regulations for rifle practice is considered sufficient, and equal for the purpose of educating the National Guard in the use of the rifle; practice in the field should, however, be supplemented by thorough instruction in the aiming and sighting drill in the armory, as also by practice during the drill season at the armory rifle range, with which all State armories are provided. It will probably be found advisable to modify the rules for qualification in rifle practice in one or two particulars, more especially the regulation under which a man who has previously qualified for five years is not awarded a decoration unless he qualifies as either first-class marksman or sharp-shooter. This restriction is liable to have a discouraging effect, and it would seem that men should be permitted to qualify in any class according to their skill. Believing that the State can derive benefit by stimulating and encouraging team matches, it is contemplated to offer one or more State trophies for competition by Regimental rifle teams.

EXAMINATION OF OFFICERS FOR COMMISSION.

It has heretofore been the custom to convene an examining board but once each year, and this during the encampment. This took much of the time from the regular camp duties of the officers to be examined, and necessitated too much delay in issuing commissions. It was therefore decided to convene a board at least twice in each year, and not during the encampment. The first board met at this

office May 11th last. This arrangement involves a slightly increased expense, but is more than compensated for by the advantages gained. The examinations, as shown by the records of the board, evince a gratifying improvement.

UNIFORM AND EQUIPMENTS.

Since the last report of this office was made the National Guard has been completely equipped with new helmets, dress coats, and trousers, of a pattern precisely similar to that of the United States army. The uniforms are reported by the Quartermaster-General to be generally in good condition, the only exceptions being in companies where State property has not been sufficiently well cared for. All officers are now required to equip themselves complete, according to the new bill of dress. The law giving officers an annual allowance of \$10 for uniform contemplates payment to those only who are completely equipped. The equipments worn by the troops are in serviceable condition; but the new canvas cartridge belt as now issued to the regular army should be adopted when new calibre rifle is obtained.

ARMORIES.

The State armories at Norwalk and New Britain have been completed, for the building of which contracts were made by the Armory Commission of which your honored predecessor was chairman. The cost of each armory, to the State, was \$28,000, including \$5,000 expended some years ago for the purchase of the land at Norwalk. The buildings erected in these towns are substantial structures, of handsome architectural design and construction, and exceptionally well adapted for military purposes.

The present Armory Commission have completed the contract made by their predecessors with Colonel L. A. Barbour, for the purchase of his building, for many years rented by the State for the use of headquarters and the Hartford companies of the First Regiment, the price paid, as agreed upon by the former commission, being \$42,500. An additional expenditure for repairs and the purchase of a strip of land in the rear, for excavation, was found advisable. Contracts for necessary work and materials have been made, involving an expenditure of about \$5,500 which, with the purchase of land and other necessary disbursements, will make the cost to the State, of this armory, about \$49,000, the limit of the amount appropriated by the General Assembly, January session, 1887, which is available for the Hartford armory.

The Norwalk and New Britain armories have been, and the Hartford armory will be, completed within the appropriation, for plans as at present proposed. It is not practicable to return to the treasury any considerable amount from the appropriation for the three armories above mentioned, the expenditures in each case having necessarily exceeded the amount estimated by the former commission. Some additional appropriation will be required for the Hartford armory in the near future.

Each town in the State having two or more military companies, is now provided with a State armory, and further expenditures for the purchase or building of armories are deemed unnecessary. The sum appropriated and expended for State armories — \$300,000 — has provided accommodations far superior to any which could have been secured by rental, and will result in a large saving to the State in the item of rent.

The State armories being capacious buildings, on the ground floor, easy of access, have been in demand for rental for fairs and entertainments, and amusements of a popular character, and they have been rented for such purposes, to some extent. In some cases this has been done where the object was for charity, or of such general interest to the local public as to warrant the rental. In other cases it has been solely to obtain money for military expenses of the State, and in these latter cases such rentals should be discontinued. In my judgment it would be better for the State to make a slight additional appropriation each year rather than to seek to obtain money from rentals of its armories.

MILITARY ENROLLMENT.

The returns by the selectmen of the enrollment in the towns of the State, made to this office April 1st, last, show a total enrollment of 84,555 male citizens between the ages of 18 and 45 years, of which number 24,259 are exempt from military duty and commutation tax by reason of physical disability, service in the army or navy, or militia, minority, and for other causes recognized by law. The number of men liable to military duty in case of war, rebellion, or invasion, is 82,591. The amount realized to the State from the commutation tax is over \$109,000, an increase over the previous year of about \$6,000. Considerable of the increase in tax this year is from some few towns in which an inaccurate or defective enrollment was made, which fact being discovered and investigated by this office, and submitted

to the town officers, has resulted in corrected returns, and increased revenue to the State. In view of the importance of an accurate enrollment, not only as a source of revenue, but as the basis upon which any call by the President for troops in excess of the number of organized militia, is levied upon the towns, it becomes the duty of this office to verify returns by the best data obtainable; where investigation is found necessary it invariably follows that a correct enrollment, as required by law, has not been made. The military commutation tax for the current two years will about equal the total appropriations for maintenance of the National Guard.

EXPENSES OF THE NATIONAL GUARD.

The following amounts were disbursed by the respective officers on account of the military establishment of the State during the fiscal year ending June 30, 1887 :

Adjutant-General (for printing, stationery, and general office expenses),	.	.	.	.	.	\$1,400.00
Quartermaster-General,	.	.	.	.	.	63,557.03
Paymaster-General,	.	.	.	.	.	43,421.19
Comptroller, for salaries, office expenses, and audit,	.	.	.	.	.	10,112.95
Total,	.	.	.	.	.	\$118,491.17

In addition to the above, there was expended \$20,000, drawn from the treasury during the previous fiscal year, and held by the Military Clothing Board as a fund for payment for new uniforms, previously contracted for.

The appropriation made by the General Assembly for military purposes for the two fiscal years ending June 30, 1889, will prove sufficient for all disbursements during that period.

BOARD OF INSPECTION.

The Quartermaster-General having reported that certain ordnance and ordnance stores, clothing, and camp and garrison equipage, owned by the State, was unserviceable, a Board of Inspection was appointed to inspect the public property designated, and report, with recommendations as to its disposal. In accordance with the report and recommendations of the board, who condemned certain property, the Quartermaster-General was directed to sell the same at the best prices obtainable.

ANNUAL APPROPRIATION FROM THE GENERAL GOVERNMENT.

Section 1661, revised statutes of the United States, as amended by act of Congress, February 11, 1887, provides for an annual appropriation of \$400,000 in arms, ordnance stores, quartermaster's stores, and camp equipage, to the militia of the several States. Under the provisions of this law the stores drawn remain the property of the United States, subject to report and inspection, and are not, as under the original law, given to the States. The annual quota of this amount credited to Connecticut is \$5,529.95, and the balance now standing to the credit of the State is \$6,691.03. Unless there should prove an imperative need for drawing from this credit it may be advisable to let a portion of it accumulate until sufficient to re-arm the troops, or re-equip them in some other respect.

RECORDS OF WAR SERVICE.

The work of compiling, for publication, the records of war service of Connecticut men in the War of the Revolution, the War of 1812, the Mexican War, and the War of the Rebellion, inaugurated by my predecessor under an appropriation by the General Assembly of 1886, was further provided for by the Assembly of 1887, and has now progressed so far as to justify the expectation that it will be fully completed during the current year.

There has been no cessation of the work since its inception in July, 1886, and, considering the immense amount of research necessary, the progress made has been very satisfactory.

Connecticut is the first State to attempt the preparation of a complete and accurate record of the service of its volunteers in the late war, with free access to the revised records of the War Department at Washington, and the result will be a volume of inestimable value to the State for all coming time. In its preparation all the original muster-rolls of the Connecticut regiments, and the vast number of original enlistment papers and individual muster certificates on file in this office, have been carefully examined and collated, and in all individual cases, where the record so obtained has been incomplete, a call has been made upon the Adjutant-General, U. S. A., for the full record, and by a special arrangement such calls give this office the benefit of all the information afforded by the pay accounts in the records of the Second, Third, and Fourth Auditors' offices of the Treasury Department. Over nine thousand such calls for individual record have thus been

sent to Washington, accepted as special by Adjutant-General Drum, and put at once in the hands of regular department clerks for investigation and report, and all but a small number, and these far advanced toward completion, have been returned to this office satisfactorily answered. This investigation in Washington has been performed by department clerks, who have volunteered to work extra hours for the purpose, and who have been paid from the appropriation at the same rate per hour as for their regular work. Special oversight has been given to the work by Major E. K. Winship, connected with the office of the Surgeon-General, U. S. A., as agent for the State, and by this means the work has been so systematized as to secure to the State full value in labor for the money expended.

Special facilities for securing the records of Connecticut men who served in the Navy have been accorded by Commodore Schley, Chief of the Bureau of Equipment and Recruiting, Navy Department, and the names of twenty-one hundred Connecticut men who thus served, and of whom no record was previously possessed by the State, will be given a place in the new Record.

The whole work has been done under the special supervision of Colonel George M. White, the able and efficient Assistant Adjutant-General of this State, whose experience since the commencement of the work under my predecessor rendered his services peculiarly valuable.

The effort to secure the names and record of all the volunteers who resided in Connecticut at date of enlistment, but whose service was not in a Connecticut regiment, or credited to the quota of this State, has not met with the complete success desired. All has been done that can be in securing information from the records of other States, but such records are very generally deficient in the matter of crediting the citizenship of non-resident volunteers, and this fact renders the completion of such a list extremely difficult of accomplishment. This difficulty would be largely remedied if all who so served and are now living, or the relatives or friends of those who so served and who are now dead, would favor this office with as full particulars as possible of such service, giving name of soldier, residence at date of enlistment, rank, company and regiment in which service was rendered, and any other facts pertinent to record of the man named. Very many such statements of record have been received, verified, and added to the Record for publication, but only a small proportion of those required to make the list complete. It is hoped that during the

next three months responses may be had from a large number of veterans, or their surviving relatives who have not yet given the matter attention.

Good progress has been made in the compilation of the "Record of Connecticut Soldiers in the Old Wars" (Revolution, 1812, and the Mexican War), and its publication in a separate volume, simultaneously with the records of the last war, is confidently anticipated. This compilation involves a thorough search, not only of a large mass of muster, pay, and descriptive rolls, reports, and other original papers in the possession of the State, but necessitates a similar examination of like papers and records in the various Departments at Washington, and in Libraries and other repositories at Albany, N. Y., Philadelphia, Pa., Trenton, N. J., Wilmington, Del., Worcester and Boston, Mass., and in numerous private libraries and collections in this and neighboring States.

To render the Revolutionary portion of this work as complete and satisfactory as possible, the services of Prof. Henry T. Johnston of the College of the City of New York, have been secured, and the large mass of information accumulated by him in ten years of research among Revolutionary records will contribute largely to the historic value and completeness of this important record. Prof. Johnston was an officer in a Connecticut Regiment during the late war, and brings personal enthusiasm as well as peculiar ability to the work.

The vast importance to the State of historic accuracy and completeness in every detail of these records of war service is fully appreciated, and no labor will be considered too burdensome to be undertaken which promises to add to the real value of the work.

STATE AID TO VETERANS.

Under existing law the aid given by the State to sick and disabled honorably discharged soldiers of the late war, is administered by a "Soldiers' Hospital Board," consisting of the Governor, the Adjutant-General, and the Surgeon-General *ex officio*, and three members of the Grand Army of the Republic appointed for two years by your Excellency, on nomination of the Department Commander of the G. A. R.

To meet the necessary expenditures for the care of sick and disabled veterans in the Home and hospitals, the General Assembly of 1887 appropriated the sum of \$137,000 for the two fiscal years ending June 30, 1889, with an additional appropriation of \$10,000 for

support of insane soldiers during the same period. This somewhat increased appropriation was rendered imperative by the steadily increasing number of veterans requiring aid, and by the popular sentiment, so pronounced as to seem well nigh universal, that no honorably discharged veteran should be driven to a poor-house, save by his own misconduct since his honorable discharge from the army.

At the close of the period covered by the last report of my predecessor, 84 soldier beneficiaries were being supported by the State in the hospitals at Hartford, New Haven, and Bridgeport, at a cost of \$6 per week; eighteen at the Hospital for Insane at Middletown, at \$3.50 per week, and sixty-two at Fitch's Home for the Soldiers at Noroton, at \$3.50 per week.

With the exception of the Asylum at Middletown, none of these institutions were under State control, and the price paid for maintenance of beneficiaries was fixed by mutual agreement between the Soldiers' Hospital Board and the managers of the several institutions. As but a small proportion of the beneficiaries required active hospital treatment, and as experience had shown that they could be supported with greater economy at a home specially equipped for the purpose, the General Assembly of 1886 appropriated \$15,000 for the enlargement of the facilities of Fitch's Home at Noroton. This appropriation was really a donation to an institution established by private beneficence, and of which the State had no control; the consideration being simply that 150 additional beneficiaries should be accommodated at an equitable weekly charge for board. Prior to January, 1887, this plan had been carried out in good faith by the then Trustees of the Home, but the difficulty of maintaining discipline and properly administering the affairs of the Home, so enlarged, with but the limited authority possessed by the managers of an essentially private institution had become manifest.

At your suggestion a conference was had with the Trustees of the Home, and they were found entirely willing, provided they could be empowered by the General Assembly so to act, to transfer the entire property of the Home to the State in fee simple. The requisite legislation was secured, and on April 1, 1887, the property was transferred to the State, and the Soldiers' Hospital Board assumed entire control of the Home as a State institution.

With a view to combining in the institution the facilities of both a hospital and a home, a special appropriation of \$8,000 was voted by the General Assembly of 1887 for the purchase of additional land

adjoining the original Home site, and a like appropriation is now available for the erection of a hospital building on the land so acquired, while the sanitary condition of the site has been greatly improved by the construction of sewers and the securing of a water supply by means of an artesian well.

The erection of a hospital, a laundry, a ground cistern in connection with the artesian well, an elevated supply tank, and suitable pumping apparatus, will be proceeded with as early in the coming spring as possible.

With that work completed it is contemplated that the State will be able to care for all its soldier beneficiaries in State institutions (except those insane) with better economy than heretofore, and with more satisfaction and better results as to discipline and good order among the beneficiaries themselves.

The following statement indicates a steady increase in the number of beneficiaries of the soldier class requiring State support, which increase seems likely to continue through the next five years at least:

Soldiers supported by the State	June 30, 1884,	.	.	.	.	.	78
"	"	"	"	June 30, 1885,	.	.	111
"	"	"	"	June 30, 1886,	.	.	159
"	"	"	"	Nov. 30, 1887,	.	.	196

Of the number supported by the State at the date last given, twenty-six were in hospitals at \$6.00 per week, twenty-one were in the Asylum at Middletown at \$3.50 per week, and 149 were at the Soldiers' Home at Noroton, at an average cost to the State of \$2.92 per week.

At the hospitals and the asylum the figures above given cover simply the board of the beneficiary, while at the Soldiers' Home the price per week includes board, clothing, attendance, and the necessary running expenses of the Home. The economy shown would seem to amply justify the plan of making the capacity of the home sufficient for the care of all the soldier beneficiaries except those insane.

PENSIONS.

The gratuitous prosecution by this office of pension and war service claims has not largely increased during the past seventeen months, and is likely to in the future only in the event of the passage by Congress of more liberal laws than now exist.

Under present conditions I would not recommend as necessary any

change in the method of affording State aid to pension applicants through this office.

In the event, however, of the passage by the present Congress, and approval by the President, of the Dependent Pension Bill, or its equivalent, it would doubtless become impossible for this office to properly attend to the large number of new claims presented without an important addition to the clerical force.

Attention is respectfully invited to the detailed report of the Assistant Adjutant-General regarding the Pension and Bounty business of this office, transmitted herewith.

I submit herewith the following reports, tables, etc.:—

1. Register of Commander-in-Chief and Staff, and the National Guard, December 1, 1887.
2. Military Enrollment, 1887.
3. Abstract of Musters, November, 1886, and November, 1887.
4. Table of Enlistments, Discharges, etc., Connecticut National Guard, July 1, 1886, to Muster, 1887.
5. Reports of Surgeon-General and the Brigade Medical Director, C. N. G.
6. Reports of Brigadier-General Charles P. Graham, commanding Brigade, C. N. G., 1886 and 1887, with map.
7. Reports of commanding officers, C. N. G., regarding May parades, 1887.
8. Reports of Examining Board.
9. Report of Board of Inspection.
10. Report of Assistant Adjutant-General regarding Pension and War Service Claims.
11. General Orders, Circulars, and Important Special Orders.

I am, very respectfully,

Your obedient servant,

FREDERICK E. CAMP,

Adjutant-General.

[1.]

REGISTER.

COMMANDER-IN-CHIEF AND STAFF

AND THE

CONNECTICUT NATIONAL GUARD.

DECEMBER 1, 1887.

REGISTER.

COMMANDER-IN-CHIEF AND STAFF.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Commander-in-Chief.</i> Governor PHINEAS C. LOUNSBURY, Ridgefield; inaug. Jan. 6, 1887.	Hartford.	47	Ridgefield, Conn.	. . . . .	Private Co. C, 17th Regt. Conn. Vols., Aug. 11, 1862; Corporal Sept. 30, 1862; dis. disab. Dec. 22, 1862.
<i>STAFF.</i> <i>Adjutant-General.</i> Brigadier-General Frederick E. Camp, Middletown; Jan. 6, 1887,	Hartford.		Durham, Conn.	Capt. Co. H, 2d Reg., C. N. G., Aug. 11, 1876; res. Mar. 11, 1880. Capt. and Adjutant 2d Reg. C. N. G., Apr. 15, 1880; res. to accept appoint- ment on Staff of Gov. Bigelow, Jan. 4, 1881. Paymaster-General State of Conn., Jan. 5, 1881; hon. dis. Jan. 3, 1883. Adjutant-General State of Conn., Jan. 6, 1887.	2d Lieut. Co. F, 24th Regt. Conn. Vols., Nov. 18, 1862; 1st Lieut. Apr. 6, 1863; wound'd June 14, 1863; Port Hudson, La., M. O. Sept. 30, 1863. Captain Co. D, 29th Regt. Conn. Vols., January 26, 1864; Maj. Nov. 24, 1864; Lieut.-Col. 29th Regt. U. S. C. I., Jan. 1, 1865; dis. Nov. 6, 1865. 2d Lieut. 14th Regt. U. S. Inf., Feb. 23, 1866; 1st Lieut. Feb. 23, 1866; trans. to 32d Regt. U. S. Inf., Sept. 21, 1866; Capt. Dec. 12, 1868; un- assigned Apr. 19, 1869; assigned to 2d Regt. U. S. Inf., Jan. 1, 1871; res. July 20, 1875.

<i>Quartermaster-General.</i> Brigadier-General Charles Olmstead, Norwalk; Jan. 6, 1887.	Hartford.	61	Ridgefield, Conn.	Private Co. D, 8th Reg. C. M., 1861; trans. to Co. G; 2d Lieut., July 31, 1864; dis. by disbandment of Co. Sept. 11, 1868. 1st Lieut. and Q.-M. 4th Reg. C. N. G., July 20, 1869; dis. Aug. 1, 1871. 1st Lieut. and Q.-M. 4th Regt. C. N. G., Aug. 21, 1871; res. May 28, 1877. Quartermaster-General State of Conn., Jan. 6, 1887.	Private Co. A, 16th Regt. Conn. Vols., July 21, 1862; Sergt. August 17, 1862; 1st Lieut. Co. D, Sept. 17, 1862; 1st Lieut. and Adjutant 16th Regt. Conn. Vols., Jan. 9, 1863; prisoner of war Apr. 29, 1864, to March 13, 1865; dis. May 15, 1865. Bvt. Captain Vols., March 13, 1865.
<i>Surgeon-General.</i> Brigadier-General Charles J. Fox, Windham; Jan. 6, 1887.	Willimantic.	33	Wethersfield, Conn.	Captain Co. F (Wethersfield), 1st Regt. C. N. G., Mar. 12, 1866; Captain and A. A. G., 1st Brigade C. N. G., Aug. 20, 1866; Res. Dec. 10, 1868. Capt. Co. F (Wethersfield), 1st Regt. C. N. G., Aug. 2, 1869; Lieut.-Col. 1st Regt. C. N. G., Apr. 23, 1870; Colonel Mar. 12, 1874; res. Jan. 15, 1875. Maj. and Brig. Insp. C. N. G., July 6, 1887; res. Jan. 5, 1887, to accept appointment on staff of Gov. Lounsbury. Commissary-General State of Conn., Jan. 6, 1887.	Private Co. E, 19th Regt. Conn. Vols. (2d Regt. Conn. H'y Art.), Aug. 6, 1862; Musician; dis. disab. June 20, 1865.
<i>Commissary-General.</i> Brigadier-General John B. Clapp, Hartford; Jan. 6, 1887.	Hartford.	45	Wethersfield, Conn.	.....	.....
<i>Paymaster-General.</i> Brigadier-General Charles H. Pine, Ansonia, Derby; Jan. 6, 1887.		42	Barkham- sted, Conn.	.....	.....

COMMANDER-IN-CHIEF AND STAFF. — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
Colonel Samuel B. Horne, <i>Aide-de-Camp</i> , Winchester; Jan. 6, 1887.	Winsted.	44	Balleck, Kings Co., Ireland.	. . . . .	Private Co. K, 2d Regt. C. V. (3 mos.), Apr. 15, 1861; dis. Aug. 7, 1861. Private Co. E, 11th Regt. Conn. Vols., October 11, 1861; Sergeant Dec. 3, 1861; 1st Sergt. Co. F, Jan. 22, 1863; 2d Lieut. Co. I, July 18, 1863; 1st Lieut. Co. F, Apr. 1, 1864; Captain Co. H, Sept. 24, 1864; Provost Marshal 18th Army C. on staff of Gen. E. O. C. Ord; dis. Nov. 16, 1864. Vol. <i>aide</i> to Gen. Weitzel (not commis'd), Feb. 10, 1865, to May 1, 1865. Commis'd Capt. 11th Regt. C. V., Oct. 20, 1865; mustered Nov. 17, 1865; as'ned to com'd of Co. A, and as Prov. Mar. of Pu- laska Co., Va., until Dec. 11, 1865, when relieved — illegal muster. Wound'd (twice), June 3, 1864, Cold Harbor, Va.; wounded and injured Sept. 29, 1864, Fort Harrison, Va.

<i>Aide-de-Camp.</i> Colonel Selah G. Blakeman, Huntington; Jan. 6, 1887.	Shelton.	46	Stratford, Conn.	. . . . .	Private Co. D, 17th Regt. Conn. Vols., July 29, 1862; Sergt. January 30, 1864; M. O. July 19, 1865.
<i>Aide-de-Camp.</i> Colonel J. Dwight Chaffee, Mansfield; Jan. 6, 1887.	Mansfield Center.	41	Mansfield, Conn.		
<i>Aide-de-Camp.</i> Colonel Edwin H. Matthewson, Norwalk; Jan. 6, 1887.	So. Norwalk.	39	Enfield, Conn.		
<i>Assistant Adjutant-General.</i> Colonel George M. White, New Haven; Jan. 8, 1885.	Hartford.	50	Wardsboro', Vt.	A. A.-G. State of Conn., Jan. 8, 1885; 2d re-appointed Jan. 6, 1887.	Lieut. Co. C, 1st Regt. Conn. Vols. (3 months), May 16, 1861; M. O. July 31, 1861. Captain Co. E, 15th Regt. Conn. Vols. July 12, 1862; captured in action, Kin- ston, N. C., March 8, 1865; dis. May 15, 1865.
<i>Assistant Quartermaster-General.</i> Lieutenant-Colonel Henry C. Mor- gan, Colchester; Jan. 6, 1887.	Hartford.	45	Brooklyn, N. Y.	Ast. Q. M.-Gen. State of Conn., Jan. 5, 1881; hon. dis. Jan. 3, 1883. Ast. Q. M.-Gen. State of Conn., Jan. 6, 1887.	1st Lieut. 12th Regt. U. S. Inf., May 14, 1861; Capt. June 16, 1863; wound'd twice; lost left leg at bat- tle of the Wilderness; brevet Major U. S. A., July 2, 1863; brevet Lieut.-Colonel U. S. A. May 5, 1864; trans. to 30th Regt. U. S. Inf. Sept. 21, 1866; retired Feb. 17, 1868.

CONNECTICUT NATIONAL GUARD.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Brigadier-General.</i> Charles P. Graham, Middletown; January 28, 1885.	Middletown.	48	Utica, N. Y.	Private Co. H, 2d Regt. C. N. G., Dec. 8, 1871; 1st Sergt. Jan. 8, 1872; 1st Lieut. Aug. 22, 1872; Capt. April 21, 1873; Major 2d Regt. C. N. G., Sept. 3, 1875; Colonel July 15, 1878; Brig.-Gen'l comdg. Brigade C. N. G., Jan. 28, 1885.	
<i>Assistant Adjutant-General.</i> Lientenant-Colonel Joseph T. Elliott, Middletown; February 13, 1885.	Middletown.	40	New York, N. Y.	Private Co. H, 2d Regt. C. N. G., Jan. 2, 1873; Corp. Sept. 29, 1873; Sergt. Mar. 9, 1875; dis. Feb. 6, 1876. Restored, Aug. 23, 1876; Sergt. Aug. 16, 1877; 2d Lieut. Mar. 23, 1880; Capt. and Adjut. 2d Regt. C. N. G., Mar. 21, 1881; Lieut.-Colonel and A. A. G. of Brigade C. N. G., Feb. 13, 1885.	
<i>Brigade Inspector.</i> Major Alexander Allen, Hartford; January 17, 1887.	Hartford.	38	Hartford, Conn.	Private Batty, D (Hartford,) attached to 3d Regt. C. N. G., April 21, 1871; (Changed to Co. F, 1st Regt., Aug. 1, 1871); Corp. Jan. 15, 1877; Sergt. Aug. 19, 1878; dis. April 29, 1879. Re-en. April 29, 1879; Sergt.; dis. Apr. 28, 1881. Re-en. Apr. 29, 1881; Sergt.; 2d Lieut. Nov. 21, 1881; Capt. Feb. 13, 1885; Major and Brigade Inspector C. N. G., Jan. 17, 1887.	

<i>Brigade Quartermaster.</i> Major Edward S. Hayder, Waterbury; April 23, 1884.	Waterbury.	36	Waterbury, Conn.	1st Lieut. and Paymaster 2d Regt. C. N. G., Sept. 30, 1878; Major and Brigade Commissary C. N. G., Jan. 23, 1883; Major and Brigade Quartermaster C. N. G., April 23, 1884.	Private Co. G, 1st Regt. Conn. Hy. Art'y. Vols. Oct. 22, 1861; dis. Nov. 4, 1864, exp. term. ser.
<i>Brigade Commissary.</i> Major Walter M. Wellman, New Haven; February 13, 1885.	New Haven.	29	Clinton, Conn.	1st Lieut. and Paymaster 2d Regt. C. N. G., Aug. 20, 1883; Major and Brigade Commissary C. N. G., Feb. 13, 1885.	
<i>Brigade Inspector of Rifle Practice.</i> Major Samuel J. Miller, Windham, March 12, 1885.	Willimantic.	47	Uxbridge, Mass.	Captain and I. R. P. 3d Regt. C. N. G., April 28, 1882; Major and Brigade I. R. P., C. N. G., March 12, 1885.	
<i>Medical Director.</i> Lieutenant-Colonel C. Purdy Lind- ley, New Haven; Feb. 13, 1885.	New Haven.	33	New Haven, Conn.	Major and Surgeon 2d Regt. C. N. G., Feb. 21, 1883; Lieut.-Col. and Med. Director C. N. G., Feb. 13, 1885.	
<i>Engineer and Signal Officer.</i> Major Charles L. Burdett, Hartford; June 14, 1883.	Hartford.	39	Nantucket, Mass.	Private Co. K, 1st Regt. C. N. G., Apr. 13, 1880; Corp. Jan. 12, 1881; Major and Engineer and Signal Officer C. N. G., June 14, 1883.	
<i>Aide-de-Camp.</i> Captain William H. Stratton, New Haven; August 17, 1883.	New Haven.	33	New Haven, Conn.	Private Co. F, 2d Regt. C. N. G., Feb. 28, 1876; Corp. Dec. 26, 1877; Sergt.-Major 2d Regt. C. N. G., March 21, 1881; 1st Lieut. and Paymaster 2d Regt. C. N. G., Feb. 21, 1883; Capt. and A.-D.-C. Brigade Staff, C. N. G., Aug. 17, 1883.	
<i>Aide-de-Camp.</i> Captain Charles G. Lyon, Bridgeport; June 10, 1884.	Bridgeport.	34	Bridgeport, Conn.		

CONNECTICUT NATIONAL GUARD.—LIGHT ARTILLERY.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
LIGHT ARTILLERY. BATTERY A.—GUILFORD. <i>Captain.</i> Arthur S. Fowler, Guilford; March 11, 1886.	Guilford.	44	Guilford, Conn.	Private 1st Sec. Batt'y. C (Guilford), C. N. G., May 8, 1871; (Changed to 2d Sec. Batt'y. A, Aug. 1, 1871; to 2d Sec. Lt. Art'y. C. N. G., Nov. 1, 1871; and to 1st Sec. Lt. Art'y. C. N. G., Mar. 29, 1875); Corp.; dis. May 16, 1879. Re-en. July 28, 1879; (Changed to 1st Platoon Lt. Art'y. C. N. G., Apr. 15, 1880, and to 1st Platoon Batt'y. A, C. N. G., November 28, 1881); Corp; Sergt.; dis. July 27, 1881. Re-en. Sept. 3, 1881; Sergt.; 2d Lieut. Dec. 5, 1881; 1st Lieut. Jan. 22, 1883; Capt Batt'y. A, C. N. G., Mar. 11, 1886.	
				Private 1st Sec. Batt'y. C (Guilford), C. N. G., June 6, 1865; (Changed to 2d Sec. Batt'y. A, Aug. 1, 1871; to 2d Sec. Lt. Art'y. C. N. G., Nov. 1, 1871; and to 1st Sec. Lt. Art'y. C. N. G., Mar. 29, 1875); Corp. 1872; 2d Lieut. Jan. 2, 1873; 1st Lieut. Nov. 16, 1874; (Changed to 1st Platoon Lt. Art'y. Apr. 15, 1880, and to 1st Platoon Batt'y. A, Nov. 28, 1881); Capt. Batt'y. A, Nov. 28, 1881; res. Mar. 3, 1886. 1st Lieut. 1st Platoon Batt'y. A, April 11, 1887.	Private Co. B, 16th Regt. Conn. Vols., July 21, 1862; dis. disab. Dec. 11, 1862.
FIRST PLATOON.—GUILFORD. <i>First Lieutenant.</i> William H. Lee, Guilford; April 11, 1887.	Guilford.	46	Guilford, Conn.		

<p><i>Second Lieutenant.</i> Nelson S. Leete, Guilford; April 5, 1886.</p>	Guilford.	31	Guilford, Conn.	Private 2d Sec. (Guilford) Lt. Arty., C. N. G., June 3, 1873; (Changed to 1st Sec. Mar. 29, 1875); Corp. Dec. 2, 1876; dis. May 16, 1879. Re-en. July 28, 1879; Corp.; (Changed to 1st Platoon Lt. Arty. C. N. G., Apr. 15, 1880, and to 1st Plat. Batty. A, Nov. 28, 1881); dis. July 30, 1881. Re-en. Sept. 7, 1882; Corp. Aug. 27, 1883; Sergt. Aug. 1, 1884; dis. Sept. 7, 1884. Re-en. Sept. 10, 1884; Sergt.; 2d Lieut. April 5, 1886.
	Branford.	31	Branford, Conn.	Private 2d Platoon Batty. A., C. N. G., May 20, 1884; Corp. May 26, 1884; 2d Lieut. Dec. 15, 1884; 1st Lieut. Dec. 17, 1885.
<p>SECOND PLATOON,—BRANFORD. <i>First Lieutenant.</i> James T. Reynolds, Branford; December 17, 1885.</p> <p><i>Second Lieutenant.</i> James H. Barker, Branford; January 7, 1886.</p>	Branford.	35	Branford, Conn.	Private 2d Platoon Batty. A, C. N. G., May 15, 1884; Sergt. Aug. 21, 1885; 2d Lieut. Jan. 7, 1886.
	Hartford.	44	Hartford, Conn.	Private Co. B, 1st Regt. C. M., Mar. 10, 1862; dis. by disbandment of Company, 1863. 1st Lieut. and Quartermaster 1st Regt. C. N. G., April 15, 1872; Major Mar. 12, 1874; res. Jan. 30, 1875. Maj. 1st Regt. C. N. G., Dec. 29, 1876; Lieut.-Colonel June 26, 1878; Colonel Nov. 20, 1884.
<p>FIRST REGIMENT (INFANTRY) <i>Colonel.</i> William E. Cone, Hartford; November 20, 1884.</p>				Private Co. E, 22d Regt. Conn. Vols., September 2, 1862; Sergt. Sept. 19, 1862; dis. July 7, 1863, exp. term service.

CONNECTICUT NATIONAL GUARD.—FIRST REGIMENT (INFANTRY), CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Lieutenant-Colonel.</i> Charles E. Thompson, Hartford; January 22, 1885.	Hartford.	40	Rockville, Conn.	Private Batty, D (Hartford), Lt. Arty., att. to 1st Regt. C. N. G., Aug. 10, 1865; Corp. Jan. 20, 1868; dis. July 24, 1871. Private Co. K, 1st Regt. C. N. G., Feb. 10, 1879; 1st Lieut. Feb. 10, 1879; Capt. Co. F, 1st Regt. C. N. G., Jan. 31, 1883; Lieut. Colonel 1st Regt. C. N. G., Jan. 22, 1885.	
<i>Major.</i> Thomas M. Smith, Hartford; April 8, 1886.	Hartford.	41	Pound Ridge, N. Y.	Private Co. B, 22d Regt. Infy. N. G. S. N. Y., Dec. 20, 1865; Corp. Dec. 8, 1873; Sergt. May 18, 1876; dis. May 22, 1882, exp. term service. Private Co. K, 1st Regt. C. N. G., Feb. 10, 1879; Capt. Feb. 10, 1879; Major 1st Regt. C. N. G., April 8, 1886.	
<i>Adjutant.—Captain.</i> Phineas H. Ingalls, Hartford; December 23, 1884.	Hartford.	31	Gorham, Me.	First Lieut. and Assistant Surgeon 1st Regt. C. N. G., Aug. 17, 1883; Capt. and Adjutant, Dec. 23, 1884.	

<i>Quartermaster.—First Lieutenant.</i> Theron C. Swan, Hartford; March 13, 1882.	Hartford,	43	Akron, Ohio.	Private Batty, D (Hartford), Lt. Arty., att. to 1st Regt. C. N. G., Aug. 24, 1865; dis. Mar. 25, 1869. Capt. and Military Storekeeper State of Conn., May 16, 1870; hon. dis. May 16, 1871. Major and A. Q. M.-G. State of Conn., May 14, 1873; hon. dis. Jan. 5, 1881. 1st Lieut. and Quartermaster 1st Regt. C. N. G., March 13, 1882.
<i>Paymaster.—First Lieutenant.</i> Wallace T. Fenn, Wethersfield; April 22, 1886.	Wethersfield.	39	New Haven, Conn.	Private Co. K, 1st Regt. C. N. G., Feb. 11, 1879; Commissary-Sergeant 1st Regt. C. N. G., March 1, 1886; 1st Lieut. and Paymaster, April 22, 1886.
<i>Surgeon—Major.</i> Harmon G. Howe, Hartford; August 17, 1883.	Hartford.	37	Jericho, Vt.	Private 1st Regt. Vermont Militia, 1867; Hospital Steward; dis. ——. 1st Lieut. and Asst. Surgeon 1st Regt. C. N. G., Aug. 23, 1878; Major and Surgeon, Aug. 17, 1883.
<i>Assistant Surgeon—First Lieut.</i> Henry S. Otis, Hartford; December 23, 1884.	Hartford.	32	Rye, N. H.	Private Co. K, 5th Regt. Mass. V. M., 1874; dis. 1875. 1st Lieut. and Asst. Surgeon 1st Regt. C. N. G., Dec. 23, 1884.
<i>Inspector of Rifle Practice.—Captain.</i> James B. Houston, Enfield; April 22, 1886.	Thompson- ville.	28	Enfield, Conn.	First Lieut. and Paymaster 1st Regt. C. N. G., Mar. 27, 1885; Captain and I. R. P., April 22, 1886.
<i>Signal Officer.—First Lieutenant.</i> Morris Penrose, Hartford; Aug. 11, 1886.	Hartford.	25	Philadelphia, Pa.	Private Co. K, 1st Regt. C. N. G., April 24, 1883; 1st Lieut. and S. O. 1st Regt. C. N. G., Aug. 11, 1886.

CONNECTICUT NATIONAL GUARD. FIRST REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Chaplain.</i> James W. Cooper, New Britain; Aug. 30, 1878.	New Britain.	45	New Haven, Conn.	Captain and A. A. G. State of Conn., Oct. 6, 1865; hon. dis. May 1, 1866. Chaplain 1st Regt. C. N. G., August 30, 1878.	
COMPANY A.—HARTFORD.					
<i>Captain.</i> Edward Schulze, Hartford, December 9, 1884.	Hartford.	38	Heseen Cas- sel, Germany.	Private Co. A, 1st Regt. C. N. G., Jan. 23, 1872; Sergt. Jan. 31, 1872; 1st Sergt. Sept. 25, 1872; 1st Lieut. Feb. 17, 1874; Capt. Dec. 9, 1884.	Private U. S. Infy. Apr. 20, 1867; assigned to Co. E, 37th Regt.; appt'd Com- pany Artificer; trans- ferred to Co. B, 3d U. S. Infantry; dis. April 20, 1870, exp. term ser.
<i>First Lieutenant.</i> Henry F. Smith, Hartford; December 9, 1884.	Hartford.	34	Weimar, Germany.	Private Co. A, 1st Regt. C. N. G., Mar. 28, 1872; Corp. Sept. 25, 1872; Sergt. April 25, 1874; 1st Sergt. May 15, 1875; Sergt.-Major 1st Regt. C. N. G., Dec. 5, 1876; 2d Lieut. Co. A, 1st Regt. C. N. G., March 15, 1877; 1st Lieut. Dec. 9, 1884.	
<i>Second Lieutenant.</i> George Senk, Hartford; March 19, 1885.	Hartford.	26	New York, N. Y.	Private Co. A, 1st Regt. C. N. G., Mar. 20, 1879; Corp. Nov. 12, 1881; Q.-M. Sergt. July 7, 1883. Dis. Mar. 31, 1884. Private Co. A, 1st Regt. C. N. G., May 15, 1884; Q.-M. Sergt. Aug. 20, 1884; Sergt. Feb. 6, 1885; 2d Lieut. March 19, 1885.	

COMPANY B.—HARTFORD.

Captain.

Thomas F. Flanagan,
Hartford; June 26, 1886.

First Lieutenant.

Patrick H. Smith,
Hartford; June 26, 1886.

Second Lieutenant.

John J. Leahy,
Hartford; June 26, 1886.

Hartford.	32	East Hartford, Conn.	Private Co. B, 1st Regt. C. N. G., Apr. 28, 1874; Corp. April 9, 1878; 2d Lieut. Dec. 27, 1878; 1st Lieut. Aug. 22, 1879; Capt. June 26, 1886.
Hartford.	38	Hartford, Conn.	Private Co. G (Hartford), 1st Regt. C. N. G., Oct. 28, 1865; dis. June 6, 1867. Pvt. Co. G (Hartford), 1st Regt. C. N. G., July 1, 1868; dis. April 25, 1871. Private Co. B, 1st Regt. C. N. G., March 19, 1872; Corp. Dec. 1, 1874; dis. April 3, 1878. 2d Lieut. Co. B, 1st Regt. C. N. G., Aug. 22, 1879; 1st Lieut. June 26, 1886.
Hartford.	32	Hartford, Conn.	Private Co. H, 1st Regt. C. N. G., May 26, 1873; Corp. Sept., 1875; Sergt. Mar., 1879; discharged Apr. 29, 1879. Re-en. May 6, 1879; trans. to Co. B, June 25, 1880; 1st Sergt. Aug. 2, 1880; dis. May 5, 1881. Re-en. May 6, 1881; 1st Sergt.; dis. May 6, 1883. Re-en. May 6, 1883; 1st Sergt.; dis. May 6, 1885. Re-en. May 6, 1885; 1st Sergt.; 2d Lieut. June 26, 1886.

CONNECTICUT NATIONAL GUARD. FIRST REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P O. ADDRESS.	AGE.	BIRTHPLACE.	In National Guard or Militia of this or any other State.	SERVICE. In U. S. Army or Navy.
COMPANY D.—NEW BRITAIN.					
<i>Captain.</i>					
Augustus N. Bennett, New Britain; November 20, 1877.	New Britain.	52	Brooklyn, N. Y.	Private Battery E, attached 1st Regt. C. N. G., July 30, 1868; Corp. July 22, 1869; Sergt.-Major 1st Regt. C. N. G., Jan. 17, 1871; 2d Lieut. 1st Sec. Battery A, C. N. G., August 1, 1871, (changed to 1st Sec. Lt. Arty., C. N. G., Nov. 1, 1871); trans. to 2d Lieut. Co. D, 1st Regt. C. N. G., Jan. 5 1875; Capt. Nov. 20, 1877.	
<i>First Lieutenant.</i>					
William E. Allen, New Britain; May 18, 1886.	New Britain.	38	New Britain, Conn.	Private Co. D, 1st Regt. C. N. G., Feb. 25, 1873; Corp. May 9, 1877; Sergt. Feb. 26, 1878; dis. Jan. 22, 1879. Re-en. Feb. 1, 1879; 1st Sergt. Feb. 25, 1879; 2d Lieut. April 5, 1881; 1st Lieut. May 18, 1886.	
<i>Second Lieutenant.</i>					
John McBriarty, New Britain; May 18, 1886.	New Britain.	40	Pelham, Mass.	Private Co. D, 1st Regt. C. N. G., July 1, 1873; Corp. Feb. 26, 1878; dis. Jan. 22, 1879. Re-en. Feb. 1, 1879; Sergt. Feb. 25, 1879; dis. March 15, 1881. Re-en. March 17, 1881; Sergt.; dis. Mar. 31, 1883. Re-en. April 3, 1883; dis. April 30, 1885. Re-en. May 1, 1885; Q. M. Sergt. Feb. 3, 1885; 2d Lieut. May 18, 1886.	

COMPANY E.—NEW BRITAIN.

Captain.

Alfred L. Thompson,
New Britain; October 3, 1883.

First Lieutenant.

John J. Smith,
New Britain; March 23, 1885.

Second Lieutenant.

Henry G. Upson,
Berlin; March 23, 1885.

COMPANY F.—HARTFORD.

Captain.

George B. Newton,
Hartford; February 7, 1887.

New Britain.	36	Portland, Conn.	Private Co. E, 1st Regt. C. N. G., June 20, 1877; Corp. Feb. 7, 1878; Sergt. April 20, 1880; 1st Sergt. Dec. 24, 1881; dis. June 20, 1882. Re-en. June 20, 1882; 1st Sergt. June 20, 1882; 2d Lieut. June 22, 1883; Capt. Oct. 3, 1883.
New Britain.	31	Ireland.	Private Co. E, 1st Regt. C. N. G., Feb. 28, 1878; Corp. June 15, 1882; Sergt. January 1, 1883; dis. Feb. 28, 1883. Re-en. March 1, 1883; Sergt. March 1, 1883; 1st Sergeant Nov. 28, 1883; 2d Lieut. Feb. 16, 1885; 1st Lieut. March 23, 1885.
Kensington.	24	Berlin, Conn.	Private Co. E, 1st Regt. C. N. G., May 28, 1883; 2d Lieut. March 23, 1885.
Hartford.	30	Hartford, Conn.	Private Co. F, 1st Regt. C. N. G., Sept. 20, 1875; Corp. April 6, 1878; dis. Oct. 30, 1880. Re-en. Nov. 12, 1880; Corp.; Sergt. April 29, 1881; dis. Nov. 11, 1882. Re-en. Nov. 12, 1882; Sergt.; dis. Nov. 12, 1884. Re-en. Nov. 12, 1884; Sergt.; 2d Lieut. Feb. 13, 1885; Captain Feb. 7, 1887.

CONNECTICUT NATIONAL GUARD. FIRST REGIMENT (INFANTRY).—CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS	AGE	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>First Lieutenant.</i>					
Louis B. Hubbard, Hartford; November 7, 1887.	Hartford.	26	Middletown, Conn.	Private Co. F, 1st Regt. C. N. G., June 21, 1879; Corp. Mar. 19, 1882; dis. June 21, 1884. Re-en. June 21, 1884; Corp.; Sergt. Dec. 16, 1884; dis. June 21, 1886. Re-en. June 21, 1886; Sergt.; 1st Sergt. Jan. 5, 1887; 2d Lieut. Feb. 7, 1887; 1st Lieut. Nov. 7, 1887.	
<i>Second Lieutenant.</i>					
Charles W. Newton, Hartford; November 7, 1887.	Hartford.	27	Hartford, Conn.	Private Co. F, 1st Regt. C. N. G., July 2, 1879; Corp. Apr. 5, 1882; dis. July 2, 1884. Re-en. July 2, 1884; Corp.; Sergt. Mar. 3, 1885; dis. July 2, 1886. Re-en. July 2, 1886; Sergt.; 1st Sergt. Feb. 7, 1887; 2d Lieut. Nov. 7, 1887.	
COMPANY G.—S. MANCHESTER.					
<i>Captain.</i>					
John Hickey, Manchester; February 7, 1887.	Manchester.	30	Manchester, Conn.	Private Co. G, 1st Regt. C. N. G., Apr. 2, 1878; Corp. Mar. 1, 1880; Sergt. June 6, 1881; 1st Lieut. Feb. 5, 1883; Capt. Feb. 7, 1887.	
<i>First Lieutenant.</i>					
Charles L. Bissell, Manchester; February 7, 1887.	South Man- chester.	26	Harwinton, Conn.	Private Co. G, 1st Regt. C. N. G., Aug. 1, 1882; Corp. Feb. 12, 1883; Sergt. May 28, 1883; 2d Lieut. March 31, 1886; 1st Lieut. Feb. 7, 1887.	

<i>Second Lieutenant.</i> Thomas J. Quish, Manchester; July 7, 1887.	South Man- chester.	22	Limerick, Ireland.	Private Co. G, 1st Regt. C. N. G., May 7, 1883; Corp. July 21, 1884; Sergt. May 24, 1886; 2d Lieut. July 7, 1887.
COMPANY H.—HARTFORD. <i>Captain.</i> William H. McLean, Hartford; December 27, 1883.	Hartford.	40	Bloomfield, Conn.	Private Co. H, 1st Regt. C. N. G., Aug. 19, 1878; Corp. Aug. 10, 1880; Sergt. Jan. 25, 1881; 2d Lieut. Apr. 18, 1882; 1st Lieut. Apr. 17, 1883; Captain Dec. 27, 1883.
<i>First Lieutenant.</i> Henry E. Chapman, Hartford; September 14, 1886.	Hartford.	33	Meriden, Conn.	Private Co. H, 1st Regt. C. N. G., Dec. 14, 1880; Corp. Oct. 11, 1881; Sergt. May 1, 1883; 2d Lieut. Feb. 19, 1884; 1st Lieut. Sept. 14, 1886.
<i>Second Lieutenant.</i> Charles H. Patterson, Hartford; September 14, 1886.	Hartford.	28	Hartford, Conn.	Private Co. H, 1st Regt. C. N. G., Nov. 22, 1878; Corp. Oct. 7, 1881; Sergt. Aug. 17, 1882; 1st Sergt. May 1, 1883; dis. Nov. 22, 1883. Re-en. Nov. 24, 1883; 1st. Sergt; dis. Nov. 24, 1885. Re-en. Nov. 24, 1885, 1st Sergt.; 2d Lieut. Sept. 14, 1886.
COMPANY K.—HARTFORD. <i>Captain.</i> Samuel O. Prentice, Hartford; April 29, 1886.	Hartford.	37	No. Stoning- ton, Conn.	Private Co. K, 1st Regt. C. N. G., Feb. 10, 1879; 2d Lieut. Feb. 10, 1879; 1st Lieut. Feb. 19, 1883; Captain April 29, 1886.
<i>First Lieutenant.</i> James H. Jarman, Hartford; April 29, 1886.	Hartford.	39	New Haven, Conn.	Private Co. F, 2d Regt. C. N. G., May 13, 1867; dis. Dec. 22, 1870. Private Co. K, 1st Regt. C. N. G., Feb. 10, 1879; Sergeant April 7, 1879; 2d Lieut. Feb. 19, 1883; 1st Lieut. April 29, 1886.

CONNECTICUT NATIONAL GUARD. SECOND REGIMENT (INFANTRY).

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Second Lieutenant.</i> De Witt P. Preston, Hartford; April 29, 1886.	Hartford.	30	Rockville, Conn.	Private Co. K, 1st Regt. C. N. G., Feb. 10, 1879; Corp. April 7, 1879; Sergt. January 12, 1881; dis. Feb. 10, 1884. Re-en. Feb. 11, 1884; Sergt.; dis. Feb. 11, 1886. Re-en. Feb. 12, 1886; 1st Sergt. Feb. 12, 1886; 2d Lieut. April 29, 1886.	
FIRST MACHINE-GUN PLATOON.— HARTFORD. <i>Second Lieutenant.</i> Henry Avery, Hartford; June 14, 1886.	Hartford.	37	England.	Private Co. H, 1st Regt. C. N. G., July 31, 1883; Corp. Aug. 25, 1884; Sergt. Feb. 19, 1886; 2d Lieut. comd'g 1st M.-G. Platoon June 14, 1886.	
— SECOND REG'T—(INFANTRY). <i>Colonel.</i> Walter J. Leavenworth, Wallingford; February 16, 1885.	Wallingford.	42	Roxbury, Conn.	Private Co. K, 2d Regt. C. N. G., Sept. 15, 1871; 1st Sergt. Sept. 19, 1871; 2d Lieut. Dec. 14, 1871; 1st Lieut. Aug. 25, 1873; Capt. Jan. 29, 1874; res. Jan. 17, 1877. Captain Co. K, 2d Regt. C. N. G., Nov. 11, 1880; res. June 16, 1882. Lieut.-Col. 2d Regt. C. N. G., July 26, 1882; Colonel Feb. 16, 1885.	

Lieutenant-Colonel.

John B. Doherty,
Waterbury; January 24, 1887.

6

Major.

Frank T. Lee,
New Haven; January 24, 1887.

Adjutant.—Captain.

Thomas T. Welles,
New Haven; April 2, 1885.

Waterbury.	34	New Brunswick, Conn.	Private Co. A, 2d Regt. C. N. G., Jan. 29, 1872; Corp. Dec. 14, 1874; Sergt. Aug. 17, 1877; dis. Apr. 17, 1879. Re-en. April 17, 1879; Sergeant; 1st Sergt. Aug. 17, 1879; 2d Lieut. May 20, 1880; 1st Lieut. June 2, 1882; Captain Aug. 1, 1883; Major 2d Regt. C. N. G., February 16, 1885; Lieut.-Col. Jan. 24, 1887.
New Haven.	31	Madison, Conn.	Private Co. F, 2d Regt. C. N. G., July 30, 1879; Sergt. Jan., 1881; 1st Sergt. April 12, 1881; 2d Lieut. March 3, 1882; 1st Lieut. March 12, 1883; Captain May 6, 1885; Major 2d Regt. C. N. G., Jan. 24, 1887.
New Haven.	38	Hartford, Conn.	Private Batty. D (Hartford), attached to 3d Regiment C. N. G., April 4, 1871; (Changed to Co. F, 1st Regt. Aug. 1, 1871); Corp. July 24, 1876; Sergt. April 6, 1878; dis. April 29, 1879. Re-en. April 29, 1879; Sergt.; dis. Apr. 28, 1881. Re-en. Apr. 29, 1881; 1st. Sergt. April 29, 1881; 1st. Lieut. Nov. 21, 1881; res. February 3, 1885. Captain and Adjt. 2d Regt. C. N. G., Apr. 2, 1885.

CONNECTICUT NATIONAL GUARD. SECOND REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Quartermaster.</i> — <i>First Lieutenant.</i> Francis J. Duffy, New Haven; June 16, 1886.	New Haven.	37	New Haven, Conn.	Private Co. C, 2d Regt. C. N. G., Nov. 1, 1870; Corp. June 30, 1873; Sergt. Sept. 1, 1876; dis. May 7, 1879. Re-en. May 8, 1879; Sergt.; dis. May 7, 1881. Re-en. May 9, 1881; Sergt.; dis. May 8, 1883. Re-en. May 11, 1883; Q. M. Sergt. 2d Regt. C. N. G., August 20, 1883; dis. May 11, 1885. Re-en. Q. M. Sergt. 2d Regt. C. N. G., May 20, 1885; 1st Lieut. and Q. M. June 16, 1886.	
<i>Paymaster.</i> — <i>First Lieutenant.</i> William H. Newton, Wallingford; February 9, 1887.	Wallingford.	37	Newfane, Vt.	Major and Surgeon 2d Regt. C. N. G., July 9, 1868; hon. dis. Aug. 5, 1871. Major and Surgeon 2d Regt. C. N. G., Aug. 9, 1871; res. July 17, 1872. Major and Surgeon 2d Regt. C. N. G., Feb. 28, 1876; Surgeon-General State of Conn., Jan., 1883; hon. dis. Jan. 8, 1885.	2d Asst. Surgeon 5th Regt. Conn. Vols. May 8, 1862; 1st Asst. Surg'n May 20, 1862; captured prisoner of war at battle of Winchester May 25, 1862; paroled May 26, 1862; released July 6, 1862; captured Culpepper C. H., Va., Aug. 12, 1862; rel'd Nov., 1862; Maj. and Sur. Mar. 12, 1863; trans. to 20th Army Ambulance Co. July 14, 1864; M. O. July 19, 1865.
<i>Surgeon.</i> — <i>Major.</i> Evelyn L. Bissell, New Haven; April 2, 1885.	New Haven.	51	Litchfield, Conn.	Major and Surgeon 2d Regt. C. N. G., Apr. 2, 1885.	

<i>Assistant Surgeon—First Lieutenant.</i> Carl E. Munger, Waterbury; April 14, 1887.	Waterbury.	29	Bergen, N. Y.	Private 2d Co. G. F. G., Conn., March 24, 1864; Corp. January 7, 1867; 3d Sergt. Jan. 20, 1868; 2d Sergt. Jan. 10, 1870; 1st Sergt. Jan. 16, 1871; 2d Lieut. Dec. 3, 1873; 1st Lieut. Jan. 4, 1877; res. Jan., 1879, Captain and I. R. P. 2d Regt. C. N. G., Jan. 5, 1880.	
<i>Inspector of Rifle Practice.—Captain.</i> Andrew Allen, New Haven; January 5, 1880.	New Haven.	57	Milford, Pa.	Private Co. E, 2d Regt. C. N. G., Feb. 1, 1875; Corp. Dec. 26, 1876; Sergt. May 7, 1879; dis. Mar. 12, 1880. First Lieut. and S. O. 2d Regt. C. N. G., July 2, 1883.	
<i>Signal Officer.—First Lieutenant.</i> William E. Jackson, New Haven; July 2, 1883.	New Haven.	34	New Haven, Conn.	Chaplain 5th Regt. Ohio N. G.	Chaplain 131st Regt. Ohio Vols., May 14, 1864.
<i>Chaplain.</i> Justin E. Twitchell, New Haven; Sept. 20, 1887.	New Haven.	52	Shelburne, Mass.		
COMPANY A.—WATERBURY. <i>Captain.</i> Lucien F. Burpee, Waterbury; June 13, 1887.	Waterbury.	32	Rockville, Conn.	Private Co. C (Rockville), 1st Regt., C. N. G., Apr. 10, 1874; Corp. June 15, 1874; dis. Nov. 22, 1878. Second Lieut. Co. A, 2d Regt. C. N. G., March 22, 1886; 1st Lieut. June 21, 1886; Captain June 13, 1887.	
<i>First Lieutenant.</i> Charles L. Stocking, Waterbury; June 13, 1887.	Waterbury.	36	Waterbury, Conn.	Private Co. A, 2d Regt. C. N. G., Dec. 4, 1871; Corp.; 1st Sergt.; 2d Lieut. Oct. 5, 1874; 1st Lieut. Dec. 20, 1875; res. May 27, 1876. 1st Lieut. Co. A, 2d Regt. C. N. G., June 13, 1887.	

CONNECTICUT NATIONAL GUARD. SECOND REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Second Lieutenant.</i> Frank M. Bronson, Waterbury; June 21, 1886.	Waterbury.	26	Waterbury, Conn.	Private Co. A, 2d Regt. C. N. G., Feb. 14, 1881; Corp. Aug. 13, 1883; Sergt. May 20, 1885; dis. Feb. 14, 1886.	
				2d Lieut. Co. A, 2d Regt. C. N. G., June 21, 1886.	
COMPANY B.—NEW HAVEN. <i>Captain.</i> John Gutt, New Haven; May 24, 1886.	New Haven.	32	Newark, N. J.	Private Co. B, 2d Regt. C. N. G., Mar. 1, 1874; Corp. Feb. 18, 1876; Sergt. May 19, 1878; 1st Sergt. July 1, 1878; dis. Mar. 13, 1879. Re-en. Mar. 13, 1879; 1st Sergt.; dis. Mar. 13, 1881. Re-en. Mar. 31, 1881; 1st Sergt.; 2d Lieut. Aug. 10, 1881; 1st Lieut. Nov. 30, 1883; Capt. May 24, 1886.	
				Private Co. B, 2d Regt. C. N. G., Jan. 4, 1875; Corp. Jan. 7, 1879; dis. Mar. 12, 1880. Re-en. Mar. 15, 1880; Sergt. Nov. 3, 1880; dis. March 14, 1882. Re-en. Mar. 15, 1882; Sergt.; dis. Mar. 15, 1884. Re-en. Apr. 9, 1884; 1st Sergt. Aug. 20, 1884; dis. April 9, 1886. Re-en. Apr. 10, 1886; 1st Sergt.; 2d Lieut. May 24, 1886; 1st Lieut. Feb. 16, 1887.	
<i>First Lieutenant.</i> Charles G. Miller, New Haven; February 16, 1887.	New Haven.	32	Springfield, Mass.		

<p><i>Second Lieutenant.</i> George M. Schaffner, New Haven; February 16, 1887.</p>	New Haven.	29 Nuremberg, Germany.	Private Co. B, 2d Regt. C. N. G., Dec. 1, 1880; Corp.; dis. Dec. 1, 1885; Re-en. Dec. 2, 1885; Sergt. Mar. 1, 1886; 2d Lieut. Feb. 16, 1887.
<p>COMPANY C.—NEW HAVEN. <i>Captain.</i> Timothy F. Callahan, New Haven; October 20, 1887.</p>	New Haven.	39 Ireland.	Private Co. C, 2d Regt. C. N. G., April 1, 1872; Corp.; Sergt.; 1st Sergt.; dis. Nov. 18, 1878. 2d Lieut. Co. C, 2d Regt. C. N. G., June 12, 1883; 1st Lieut. Feb. 4, 1886; Capt. Oct. 20, 1887. Private Co. H, 35th Regt. U. S. Infantry, Nov. 18, 1867; Corporal June 10, 1868; trans. to 15th Regt. U. S. Infy.; Sergt. Aug. 11, 1870; dis. Nov. 5, 1870, exp. term ser.
<p><i>First Lieutenant.</i> Michael Creed, New Haven; October 20, 1887.</p>	New Haven.	32 England.	Private Co. C, 2d Regt. C. N. G., April 1, 1874; dis. May 8, 1879. Re-en. May 8, 1879; Corp. May 8, 1879; dis. May 7, 1881. Re-en. May 9, 1881; Sergeant May 10, 1881; dis. May 9, 1883. Re-en. May 16, 1883; 1st Sergt. Sept. 1, 1884; dis. May 16, 1885. Re-en. June 4, 1885; 1st Sergt.; 2d Lieut. Feb. 4, 1886; 1st Lieut. Oct. 20, 1887.
<p><i>Second Lieutenant.</i> James J. Kennedy, New Haven; October 20, 1887.</p>	New Haven.	34 Orange, Conn.	Private Co. C, 2d Regt. C. N. G., Mar. 10, 1874; dis. May 7, 1879. Re-en. May 8, 1879; Corp. May 8, 1879; dis. May 7, 1881. Re-en. May 9, 1881; Corp.; dis. May 9, 1883. Re-en. May 11, 1883; Corp.; Q. M. Sergt.; Sergt.; dis. May 11, 1885. Re-en. May 14, 1885; Sergt.; dis. May 14, 1887. Re-en. July 23, 1887; 1st Sergt.; 2d Lieut. Oct. 20, 1887.

CONNECTICUT NATIONAL GUARD. SECOND REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
COMPANY D.—NEW HAVEN. <i>Captain.</i> Andrew H. Embler, New Haven; November 20, 1884.	New Haven.	53	New York, N. Y.	Private Co. H, 71st Regt. N. Y. S. M., 1854; 1st Lieut. April, 1861; Capt. August, 1861. First Lieut. Co. K, 2d Regt. N. Y. S. M. (82d Regt. Vols.), Nov., 1861; Cap- tain Co. E, July, 1862. Captain 1st Co. G. F. G., Conn., 1879; Major, 1880; res. Jan. 30, 1882. Captain Co. D, 2d Regt. C. N. G., Nov. 20, 1884.	1st Sergt. Co. H, 71st Regt. N. Y. S. M., April 19, 1861; 1st Lieut.; M. O. July 24, 1861, exp. term service. 1st Lieutenant Co. K, 2d Regt. N. Y. S. M. (82d Regt. N. Y. Vols.), Nov., 1861; Capt. Co. E, July, 1862; Capt. U. S. Vols. and A.-D.-C. to Maj- Gen. John Gibbon, com- manding 2d Div., 2d A. C., Army of the Potomac, May 1864; Major U. S. Vols. and A.-D.-C. to Maj.-Gen. John Gibbon, comdg. 24th A. C., Army of Potomac, Jan., 1865; wounded July 21, 1861, Sept. 17, 1862, May 5, 1864; hon. dis. Dec., 1865.
<i>First Lieutenant.</i> Robert G. Christie, New Haven; June 6, 1884.	New Haven.	29	New Haven, Conn.	Private Co. D, 2d Regt. C. N. G., Feb. 1, 1877; Corp. Feb. 1, 1878; Sergt. Dec. 16, 1880; dis. January 31, 1882. Re-en. February 1, 1882; Sergt.; 1st Sergt. Apr. 19, 1883; 2d Lieut. Apr. 17, 1884; 1st Lieut. June 6, 1884.	

<p><i>Second Lieutenant.</i></p> <p>Edward I. Williams, New Haven; Mar. 10, 1887.</p> <p>COMPANY E.—NEW HAVEN.</p> <p><i>Captain.</i></p> <p>Theodore H. Sucher, New Haven; December 15, 1884.</p> <p><i>First Lieutenant.</i></p> <p>Robert M. Walker, New Haven; December 15, 1884.</p>	New Haven.	25	Essex, Conn.	Private Co. D, 2d Regt. C. N. G., Nov. 15, 1883; Corp. Aug. 1, 1884; Sergt. Nov. 15, 1886; 2d Lieut. Mar. 10, 1887.
	New Haven.	28	New Haven, Conn.	Private Co. E, 2d Regt. C. N. G., May 7, 1877; Corp. May 1, 1879; dis. May 6, 1882. Re-en. May 7, 1882; Corp.; 2d Lieut. Mar. 5, 1883; 1st Lieut. Mar. 4, 1884; Capt. Dec. 15, 1884.
	New Haven.	38	Arlington, Mass.	Private Co. E, 2d Regt. C. N. G., Feb. 17, 1868; Corp. May 4, 1874; Sergt. May 1, 1879; dis. May 7, 1879. Re-en. May 7, 1879; Sergt.; dis. May 6, 1881. Re-en. May 6, 1881; Sergt.; Color Sergt. May 23, 1881; dis. May 6, 1883. Re-en. May 6, 1883; 1st Sergt. Mar. 4, 1884; 1st Lieut. Dec. 15, 1884.
<p><i>Second Lieutenant.</i></p> <p>Leverett B. Fairchild, New Haven; March 4, 1884.</p>	New Haven.	45	Newtown, Conn.	Private Co. A (Bethel), 8th Regt. C. N. G., Aug. 28, 1865; Sergt.; dis. Oct. 27, 1870. Private Co. E, 2d Regt. C. N. G., April 15, 1872; Sergt. March 22, 1875; dis. May 7, 1879. Re-en. May 7, 1879; 1st Sergt. Aug. 4, 1879; dis. May 6, 1881. Re-en. May 6, 1881; 1st Sergt.; dis. May 6, 1883. Re-en. May 6, 1883; 1st Sergt.; 2d Lieut. Mar. 4, 1884.

Private Co. C, 17th Regt. Conn. Vols. July 28, 1862; captured prisoner of war May 3, 1863; returned Oct. 20, 1863; M. O. July 19, 1865.

CONNECTICUT NATIONAL GUARD. SECOND REGIMENT (INFANTRY) — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
COMPANY F.—NEW HAVEN.					
<i>Captain.</i> Charles C. Ford, New Haven; February 16, 1887.	New Haven.	31	New Haven, Conn.	Private Co. F, 2d Regt. C. N. G., Feb. 11, 1881; Corp. Jan. 22, 1883; Sergt. Aug. 6, 1883; 1st Sergt. June 8, 1885; dis. Feb. 11, 1886. Re-en. Feb. 11, 1886; 1st Sergt.; 2d Lieut. March 11, 1886; 1st Lieut. Jan. 19, 1887; Cap- tain Feb. 16, 1887.	
<i>First Lieutenant.</i>					
Harvey S. Munson, New Haven; February 16, 1887.	New Haven.	30	New Haven, Conn.	Private Co. F, 2d Regt. C. N. G., Aug. 28, 1882; Corp. Jan. 2, 1884; Sergt. June 10, 1885; 1st Sergt. April 21, 1886; 2d Lieut. Jan. 19, 1887; 1st Lieut. Feb. 16, 1887.	
<i>Second Lieutenant.</i>					
John T. Gill, Orange, February 16, 1887.	New Haven.	26	New Haven, Conn.	Private Co. F, 2d Regt. C. N. G., Mar. 28, 1881; Corp. Jan. 30, 1882; Sergt. June 10, 1885; dis. Mar. 28, 1886. Re-en. Mar. 28, 1886; Sergt.; 2d Lieut. Feb. 16, 1887.	
COMPANY G.—WATERBURY.					
<i>Captain.</i> Alfred J. Wolff, Waterbury; June 21, 1886.	Waterbury.	31	France.	Private Co. G, 2d Regt. C. N. G., June 7, 1876; Corp. October 4, 1880; dis. June 6, 1881. Re-en. July 20, 1881; Sergt. Sept. 3, 1881; dis. July 20, 1883. Re-en. Jan. 3, 1884; 1st Sergt. Mar. 18, 1884; 2d Lieut. July 1, 1884; Captain June 21, 1886.	

<i>First Lieutenant.</i> Daniel E. Fitzpatrick, Waterbury; November 15, 1887.	Waterbury.	26	Waterbury, Conn.	Private Co. G, 2d Regt. C. N. G., July 30, 1883; 2d Lieut. Oct. 19, 1886; 1st Lieut. Nov. 15, 1887.
<i>Second Lieutenant.</i> Patrick Halpin, Waterbury, November 15, 1887.	Waterbury.	22	Waterbury, Conn.	Private Co. G, 2d Regt. C. N. G., Sept. 1, 1885; Q.-M. Sergt. May 3, 1887; 2d Lieut. Nov. 15, 1887.
COMPANY H.—MIDDLETOWN. <i>Captain.</i> Wesley U. Pearne, Middletown; March 17, 1885.	Middletown.	36	New York, N. Y.	Private Co. H, 2d Regt. C. N. G., Jan. 12, 1875; dis. June 1, 1876. Restored Aug. 23, 1876; dis. March 12, 1880. Re-en. March 12, 1880; Com. Sergt. 2d Regiment April 15, 1880; 1st Lieut. Co. H, Jan. 24, 1882; Captain March 17, 1885.
<i>First Lieutenant.</i> Benjamin D. Putnam, Middletown; March 17, 1885.	Middletown.	29	Middletown, Conn.	Private Co. H, 2d Regt. C. N. G., May 25, 1878; Corp. April 25, 1880; Sergt. Feb. 7, 1882; 1st Sergt. May 8, 1883; dis. May 25, 1883. Re-en. May 25, 1883; 1st Sergt.; 2d Lieut. January 8, 1884; 1st Lieut. March 17, 1885.
<i>Second Lieutenant.</i> Nathan H. Smith, Middletown; March 17, 1885.	Middletown.	33	Lyne, Conn.	Private Co. H, 2d Regt. C. N. G., April 20, 1880; Corp. Aug. 15, 1881; Sergt. April 10, 1883; 1st Sergt. May 26, 1884; 2d Lieut. March 17, 1885.
COMPANY I.—MERIDEN. <i>Captain.</i> Charles B. Bowen, Meriden; October 20, 1887.	Meriden.	26	Lewiston, Me.	Private Co. I, 2d Regt. C. N. G., May 24, 1881; Q.-M. Sergt. June 26, 1883; 1st Lieut. July 30, 1885; Capt. Oct. 20, 1887.

CONNECTICUT NATIONAL GUARD. SECOND REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>First Lieutenant.</i> Frederick T. Ward, Meriden; October 20, 1887.	Meriden.	41	Fayetteville, N. C.	Private Co. I, 2d Regt. C. N. G., Jan'y, 1866; Sergt. Feb. 27, 1879; dis. May 7, 1879. Re-en. May 7, 1879; 1st Sergt. Feb. 9, 1880; 2d Lieut. April 14, 1881; 1st Lieut. Oct. 20, 1887.	
<i>Second Lieutenant.</i> Robert W. Isbell, Meriden; October 20, 1887.	Meriden.	30	Naugatuck, Conn.	Private Co. I, 2d Regt. C. N. G., June 21, 1877; dis. June 20, 1882. Re-en. June 25, 1882; Sergt. May 17, 1884; dis. June 25, 1884. Re-en. June 26, 1884; 1st Sergt. June 23, 1886; dis. June 26, 1886. Re-en. June 27, 1886; 1st Sergt.; 2d Lieut. Oct. 20, 1887.	
COMPANY K.—Wallingford. <i>Captain.</i> Bryant A. Treat, Wallingford; March 1, 1883.	Wallingford.	45	Oxford, Conn.		
<i>First Lieutenant.</i> George G. LaBarnes, Wallingford; December 26, 1878.	Wallingford.	37	Meriden, Conn.	Private Co. K, 2d Regt. C. N. G., Sept. 15, 1871; Corp. Aug. 25, 1873; Sergt. April 2, 1877; 1st Sergt. June 1, 1878; 1st Lieut. Dec. 26, 1878.	
<i>Second Lieutenant.</i> Robert E. Hall, Wallingford; July 28, 1887.	Wallingford.	25	Wallingford, Conn.	Private Co. K, 2d Regt. C. N. G., Feb. 3, 1881; Corp. May 17, 1883; dis. Feb. 3, 1886. Re-en. Feb. 18, 1886; Sergt. April 8, 1886; 1st Sergt. Dec. 31, 1886; 2d Lieut. July 28, 1887.	

SECOND MACHINE-GUN PLATOON—

NEW HAVEN.

*Second Lieutenant.*William H. Sears,
New Haven; July 21, 1886.

New Haven.	30	New Haven, Conn.	Private Co. F, 2d Regt. C. N. G., Nov. 15, 1875; Corp. June 2, 1879; dis. Jan. 12, 1881. 2d Lieut. comdg 2d M.-G. Platoon 2d Regt. C. N. G., July 21, 1886.
New London.	43	New London, Conn.	2d Lieut. Co. D, 3d Regt. C. N. G., July 6, 1865; 1st Lieut. Dec. 1, 1865; Captain Aug. 10, 1867; Major 3d Regt. C. N. G., Sept. 3, 1870; Lieut.-Col. April 20, 1872; res. April 21, 1873. Captain and Adjt. 3d Regt. C. N. G., Feb. 18, 1879; Major Mar. 20, 1882; Colonel, July 12, 1886.
Westerly, R. I.	40	Ireland.	Private Co. B, 3d Regt. C. N. G., March 4, 1875; 1st Sergt.; 1st Lieut. August 26, 1875; Capt. June 7, 1877; Lieut.-Colonel July 12, 1886.
Norwich.	31	Norwich, Conn.	First Lieut. Co. C, 3d Regt. C. N. G., May 28, 1878; Capt. Dec. 30, 1880; res. Nov. 14, 1881. Captain Co. C, 3d Regt. C. N. G., Nov. 21, 1881; Major July 12, 1886.

THIRD REG'T (INFANTRY).

*Colonel.*George Haven,
New London; July 12, 1886.Private Rifle Co. C, 2d
Regiment Conn. Vols. (3
mos.), May 7, 1861; dis.
Aug. 7, 1861.
Private Co. C, 1st Regt.
Cav'y Conn. Vols., Nov.
25, 1861; Corporal; dis.
Nov. 22, 1864, exp. term
service.*Lieutenant-Colonel.*Michael Twomey,
Stonington; July 12, 1886.*Major.*William F. Bidwell,
Norwich; July 12, 1886.

CONNECTICUT NATIONAL GUARD. THIRD REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Adjutant.—Captain.</i> Hezekiah B. Smith, New London; July 23, 1883.	New London.	46	New London, Conn.	Private Co. D, 3d Regt. C. N. G., Aug. 31, 1871; Sergeant; Sergt.-Major 3d Regt., Aug. 1, 1872; Capt. and Adjt. Apr. 29, 1875; hon. dis. Apr. 16, 1878. Capt. and Adjt. 3d Regt. C. N. G., July 23, 1883.	Private Rifle Co. C, 2d Regt. Conn. Vols. (3 months), May 7, 1861; dis. Aug. 7, 1861. Private 1st Lt. Batty. Conn. Vols. Oct. 14, 1861; Sergt. Nov. 26, 1861; Q.-M. Sergt. Feb. 15, 1863; 2d Lieut. May 13, 1863; 1st Lieut. June 23, 1864; dis. Jan. 30, 1865.
<i>Quartermaster.—First Lieutenant.</i> William E. Pendleton, New London; January 7, 1887.	New London.	34	Mystic, Conn.	Private Co. D, 3d Regt. C. N. G., Sept. 13, 1880; Corp. Aug. 22, 1881; Sergt. Aug. 22, 1883; dis. Sept. 13, 1885. Re-en. Oct. 12, 1885; 1st Sergt. Sept. 6, 1886; 1st Lieut. and Q.-M. 3d Regt. C. N. G., Jan. 7, 1887.	
<i>Paymaster.—First Lieutenant.</i> George M. Cole, New London; January 7, 1887.	New London.	34	England.	Private Indiana Legion, November, 1882; 1st Sergt.; dis. — Private 3d M.-G. Platoon, 3d Regt. C. N. G., Feb. 7, 1885; Sergt. April 29, 1885; Com'y Sergt. 3d Regt. Aug. 6, 1886; 1st Lieut. and Paymaster, Jan. 7, 1887.	
<i>Surgeon.—Major.</i> Leonard B. Almy, Norwich; July 22, 1886.	Norwich.	36	Norwich, Conn.		
<i>Assistant Surgeon.—First Lieut.</i> Henry L. Hammond, Killingly; July 23, 1886.	Killingly.	45	Killingly, Conn.	. . . . .	Acting Assistant Surg. U. S. Vols., March, 1865.

<i>Inspector of Rifle Practice.—Captain.</i> Thomas H. Allen, Sprague; July 21, 1887.	Sprague.	25	Sprague, Conn.	Private Co. C, 3d Regt. C. N. G., Sept. 3, 1883; Sergt.; 1st Lieut. and S. O. 3d Regt., Aug. 11, 1885; Capt. and I. R. P., July 21, 1887.
	New London	45	Middletown, Conn.	Private Co. D (Middletown), 6th Regt. C. N. G., Sept. 4, 1868; (Changed to Co. H, 2d Regt. C. N. G., Aug. 1, 1871); dis. Sept. 8, 1871. First Lieut. and S. O. 3d Regt. C. N. G., July 21, 1887.
<i>Signal Officer.—First Lieutenant.</i> Hiram W. Hubbard, New London; July 21, 1887.	Groton.	67	No. Kingston, R. I.	..... Chaplain 26th Regt. Conn. Vols., Sept. 26, 1862; dis. Apr. 2, 1863.
<i>COMPANY A.</i> <i>Captain.</i> Michael J. Roach, New London; June 8, 1887.	New London.	36	Norwich, Conn.	Private Co. D, 3d Regt. C. N. G., Aug. 28, 1871; Corp. July 9, 1872; Sergt. May 17, 1876; dis. Dec. 21, 1876. Re-en. May 12, 1878; Sergt.; 1st Sergt.; 2d Lieut. April 10, 1882; Capt. Co. A, June 8, 1887.
<i>First Lieutenant.</i> John F. Murray, New London; November 30, 1886	New London.	28	New London, Conn.	Private Co. D, 3d Regt. C. N. G., Aug. 15, 1881; Corp. May 8, 1882; Sergt. July 27, 1883; dis. Aug. 15, 1886. Private Co. A, 3d Regt. C. N. G., Nov. 8, 1886; 1st Lieut. Nov. 30, 1886.
<i>Second Lieutenant.</i> Edward K. May, New London; November 30, 1886.	New London.	23	New London, Conn.	Private Co. A, 3d Regt. C. N. G., Nov. 8, 1886; 2d Lieut. Nov. 30, 1886.
				Musician 14th Regt. U. S. Infy., Sept. 19, 1861; dis. Sept. 19, 1864, exp. term service. Re-en. 3d Regt. U. S. Arty. Sept. 26, 1864; dis. Sept. 26, 1867, exp. term ser.

CONNECTICUT NATIONAL GUARD. THIRD REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS	AGE.	BIRTHPLACE.	IN NATIONAL GUARD OR MILITIA OF THIS OR ANY OTHER STATE.	SERVICE. IN U. S. ARMY OR NAVY.
COMPANY B.—PAWCATUCK.					
<i>Captain.</i> Daniel Keleher, Stonington; July 28, 1886.	Westerly, R. I.	36	Ireland.	Private Co. B, 3d Regt. C. N. G., Mar. 4, 1875; Sergt.; 2d Lieut. March 23, 1876; res. Aug. 9, 1876. Private Co. B, 3d Regt. C. N. G., Dec. 28, 1877; Sergt.; 2d Lieut. Aug. 18, 1879; 1st Lieut. May 16, 1882; Cap- tain July 28, 1886.	
<i>First Lieutenant.</i> Cornelius Bransfield, Stonington; July 28, 1886.	Westerly, R. I.	31	Stonington, Conn.	Private Co. B, 3d Regt. C. N. G., April 4, 1878; Corp.; 2d Lieut. May 16, 1882; 1st Lieut. July 28, 1886.	
<i>Second Lieutenant.</i> Edmund Keleher, Stonington; July 28, 1886.	Westerly, R. I.	27	Stonington, Conn.	Private Co. B, 3d Regt. C. N. G., Aug. 12, 1879; Corp. May, 1880; Sergt. June, 1882; dis. Aug. 12, 1884. Re- en. Aug. 26, 1884; Sergt.; 2d Lieut. July 28, 1886.	
COMPANY C.—NORWICH.					
<i>Captain.</i> Thomas B. Linton, Norwich; November 12, 1886.	Norwich,	29	Griswold, Conn.	Private Co. C, 3d Regt. C. N. G., June 30, 1876; Corp. Sept. 3, 1878; dis. June 29, 1881. Re-en. June 30, 1881; Sergt.; dis. June 30, 1883. Re-en. July 3, 1883; Sergt.; dis. July 3, 1885; Re-en. July 3, 1885; 1st Sergt. Aug., 1885; 2d Lieut. July 6, 1886; 1st Lieut. July 27, 1886; Capt. Nov. 12, 1886.	

<i>First Lieutenant.</i> Irving E. Hill, Norwich; December 7, 1886.	Norwich,	25	Norwich, Conn.	Private Co. C, 3d Regt. C. N. G., Oct. 10, 1882; Corp. July 14, 1885; 1st Lieut. and P. M. Aug. 5, 1886; 1st Lieut. Co. C, Dec. 7, 1886.
	Norwich,	28	East Lyme, Conn.	Private Co. C, 3d Regt. Dec. 13, 1880; Corp. Feb. 18, 1882; Sergt. July 14, 1885; dis. Dec. 13, 1885. Re-en. Dec. 13, 1885; Sergt.; 2d Lieut. Jan. 18, 1887.
<i>Second Lieutenant.</i> Fred A. Fox, Norwich; January 18, 1887.	New London.	43	New York, N. Y.	Private Co. D, 3d Regt. C. N. G., Oct. 31, 1871; Corp. Dec. 18, 1872; Sergt. March 23, 1874; dis. Dec. 21, 1876. Re-en. Jan. 8, 1877; 1st Lieut. Nov. 12, 1877; Capt. Aug. 1, 1881.
	New London.	39	New London, Conn.	Private Co. D, 3d Regt. C. N. G., Aug. 12, 1873; Corp. April 8, 1876; 1st Sergt. May 9, 1877; 2d Lieut. July 8, 1878; 1st Lieut. Aug. 1, 1881.
<i>First Lieutenant.</i> William M. Mason, New London; August 1, 1881.	New London.	32	New London, Conn.	Private Co. D, 3d Regt. C. N. G., Sept. 13, 1880; Corp. May 16, 1881; Sergt. Aug. 14, 1882; dis. Sept. 13, 1885. Re-en. Oct. 12, 1885; Sergt.; 2d Lieut. July 5, 1887.
	Willimantic.	31	Windham, Conn.	Private Co. E, 3d Regt. C. N. G., Aug. 20, 1879; Sergt. Aug. 1881; 2d Lieut. July 24, 1883; Capt. May 17, 1886.
<i>Second Lieutenant.</i> M. Wilson Dart, New London; July 5, 1887.	Willimantic.	46	England.	Private N. Y. Militia 1860. Private Co. E, 3d Regt. C. N. G., July 23, 1881; Corp. Aug. 1881; 1st Lieut. Jan. 23, 1883.
	Willimantic.			Private U. S. Marine Corps Oct. 31, 1861; hon. dis. Nov. 1, 1865; exp. term service.
<i>First Lieutenant.</i> Thomas Ashton, Windham; January 23, 1883.	COMPANY E.—WILLIMANTIC.			
	<i>Captain.</i> Patrick Fitzpatrick, Windham; May 17, 1886.			
<i>First Lieutenant.</i> Thomas Ashton, Windham; January 23, 1883.	COMPANY E.—WILLIMANTIC.			
	<i>Captain.</i> Patrick Fitzpatrick, Windham; May 17, 1886.			

CONNECTICUT NATIONAL GUARD. THIRD REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Second Lieutenant.</i> John H. Morrison, Windham; May 17, 1886. COMPANY F.—DANIELSON- VILLE. <i>Captain.</i> John Armstrong, Killingly; Sept. 20, 1887. <i>First Lieutenant.</i> Kent A. Darbie, Killingly; Sept. 20, 1887.	Willimantic.	25	Windham, Conn.	Private Co. E, 3d Regt. C. N. G., May 15, 1883; Corp. Sept. 10, 1883; Sergt. Aug. 21, 1884; 2d Lieut. May 17, 1886. Private Co. F, 3d Regt. C. N. G., Dec. 15, 1885; 2d Lieut. April 1, 1886; 1st Lieut. June 3, 1886; Capt. Sept. 20, 1887. Private Co. H, 3d Regt. C. N. G., Mar. 25, 1879; dis. by disband. of Co. April 20, 1881. Private Co. F, 3d Regt. C. N. G., Dec. 15, 1885; 2d Lieut. June 3, 1886; 1st Lieut. Sept. 20, 1887.	
<i>Second Lieutenant.</i> Henry E. Burton, Killingly; November 15, 1887. COMPANY G.—PUTNAM. <i>Captain.</i> Clinton A. Winslow, Putnam; November 15, 1883.	Danielson- ville.	27	England.	Private Co. F, 3d Regt. C. N. G., Dec. 15, 1885; 2d Lieut. April 1, 1886; 1st Lieut. June 3, 1886; Capt. Sept. 20, 1887. Private Co. H, 3d Regt. C. N. G., Mar. 25, 1879; dis. by disband. of Co. April 20, 1881. Private Co. F, 3d Regt. C. N. G., Dec. 15, 1885; 2d Lieut. June 3, 1886; 1st Lieut. Sept. 20, 1887.	
	Danielson- ville.	28	Thompson, Conn.	Private Co. F, 3d Regt. C. N. G., Dec. 15, 1885; 2d Lieut. June 3, 1886; 1st Lieut. Sept. 20, 1887.	
	Danielson- ville.	24	St. Albans, Vt.	Private Co. F, 3d Regt. C. N. G., April 8, 1886; Corp. April 1, 1887; 2d Lieut. Nov. 15, 1887.	
	Putnam.	39	Putnam, Conn.	Private Co. G, 3d Regt. C. N. G., Jan. 11, 1872; Corp.; 2d Lieut. Aug. 22, 1876; 1st Lieut. Aug. 30, 1877; Capt. April 3, 1878; res. May 2, 1879. 2d Lieut. Co. G, 3d Regt. C. N. G., Mar. 18, 1881; res. Aug. 17, 1881. 2d Lieut. Co. G, 3d Regt. C. N. G., Apr. 5, 1883; Capt. Nov. 15, 1883.	

<i>First Lieutenant.</i>					
Edward G. Wright, Putnam; August 15, 1884.	Putnam.	29	St. Albans, Vt.		
<i>Second Lieutenant.</i>					
Alfred M. Parker, Putnam; August 15, 1884.	Putnam.	35	Boston, Mass.	Private Lawrence Light Guard, M. V. M., June 1, 1870; dis. June 15, 1871. 2d Lieut. Co. G, 3d Regt. C. N. G., Aug. 15, 1884.	
COMPANY I.—NEW LONDON.					
<i>Captain.</i>					
Abner N. Sterry, New London; February 18, 1879.	New London.	48	New London, Conn.	Private Co. D, 3d Regt. C. N. G., Aug. 31, 1871; 2d Lieut. Oct. 17, 1871; 1st Lieut. May 12, 1873; res. June 5, 1876. Capt. and Adj. 3d Regt. C. N. G., Mar. 30, 1878; Capt. Co. I, Feb. 18, 1879.	Pvt. Rifle Co. C, 2d Regt. Conn. Vols (3 months). May 7, 1861; dis. Aug. 8, 1861. Pvt. Co. I, 13th Regt. Conn. Vols., January 4, 1862; Corp. Jan. 8, 1862; Sergt. June 28, 1862; 1st Sergt. Dec. 25, 1863. Re-en. Feb. 8, 1864; 2d Lieut. July 1, 1864; trans. to Co. B (13th Batt'n), Dec. 29, 1864; 1st Lieut. Co. D, Jan. 7, 1865; Captain Co. E, April 23, 1865; M. O. Apr. 25, 1866. Bvt. Major Vols., March 13, 1865.

CONNECTICUT NATIONAL GUARD. THIRD REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>First Lieutenant.</i> Frank P. Goff, New London; August 10, 1886.	New London.	37	New London, Conn.	Private Co. D, 3d Regt. C. N. G., April 9, 1867; dis. Aug. 31, 1871. Re-en. Aug. 31, 1871; Corp.; Sergt. April 1, 1875; dis. Dec. 21, 1876. Private Co. I, 3d Regt. C. N. G., May 26, 1879; Sergt. Aug. 26, 1879; 1st Sergt. Nov. 9, 1880; dis. May 26, 1881. Re-en. June 7, 1881; 1st Sergt.; 2d Lieut. May 16, 1882; 1st Lieut. Aug. 10, 1886.	
<i>Second Lieutenant.</i> Samuel Prince, New London; August 10, 1886.	New London.	37	England.	Private Co. I, 3d Regt. C. N. G., Aug. 12, 1879; Corp.; dis. Aug. 12, 1884. Re-en. Aug. 26, 1884; Corp.; 2d Lieut. Aug. 10, 1886.	
THIRD MACHINE-GUN PLATOON— NEW LONDON.					
<i>Second Lieutenant.</i> Charles F. Chaney, New London; November 10, 1884.	New London.	34	New London, Conn.	Private Co. I, 3d Regt. C. N. G., Jan. 8, 1879; 1st Sergt. Jan. 8, 1879; 2d Lieut. Nov. 9, 1880; Capt. and Adjt. 3d Regt., April 28, 1882; res. July 23, 1883. 2d Lieut. Com'dg 3d M.-G. Platoon, 3d Regt. C. N. G., Nov. 10, 1884.	

FOURTH REG'T — (INFANTRY).

Colonel.

Thomas L. Watson,
Bridgeport; April 23, 1884.

Lieutenant-Colonel.

Henry Skinner,
Winchester; October 12, 1878.

Major.

James C. Crowe,
Norwalk; August 18, 1880.

Adjutant—Captain.

Louis N. Van Keuren,
Bridgeport; January 10, 1885.

Bridgeport.	40	Bridgeport, Conn.	First Lieut. and Paymaster 4th Regt. C. N. G., May 28, 1877; Capt. and Adj. 4th Regt. C. N. G., July 6, 1878; Major and Brigade Quartermaster, Jan. 30, 1879; Colonel 4th Regt. C. N. G., April 23, 1884.
W. Winsted.	43	Winsted, Conn.	Capt. Co. I, 4th Regt. C. N. G., Feb. 17, 1872; Major 4th Regt., April 6, 1877; Lieut. Col. Oct. 12, 1878.
So. Norwalk.	52	Norwalk, Conn.	Private Co. A, 8th Regt. C. M., Jan. 1, 1854; 2d Corp. Dec. 30, 1856; 1st Corp. May 10, 1859; dis. 1861. Private Co. D, 8th Regt. C. M., Jan. 1862; 2d Sergt. Jan. 31, 1862; 1st Sergt. Feb. 22, 1864; 2d Lieut. April 24, 1865; 1st Lieut. May 21, 1866; (Changed to Co. D, 4th Regt. C. N. G., Aug. 1, 1871); Capt. July 19, 1871; Maj. 4th Regt., Aug. 18, 1880.
Bridgeport.	37	Wartsbo- rough, N. Y.	Private Co. C (Bridgeport), 4th Regt. C. N. G., Sept. 11, 1884; dis. by disbandment of Co. Dec. 19, 1884. Capt. and Adj. 4th Regt. C. N. G., Jan. 10, 1885.

Private Co. E, 2d Regt. Heavy Arty. Conn. Vols. July 26, 1862; Sergeant August, 1862; 2d Lieut. Co. M, March 29, 1864; 1st Lieut. Co. G, Aug. 22, 1864; captured Oct. 19, 1864, Cedar Creek, Va.; Capt. Co. B, April 13, 1865; M. O. August 18, 1865.

CONNECTICUT NATIONAL GUARD, FOURTH REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Quartermaster.—First Lieutenant.</i> Howard G. Hubbell, Bridgeport; May 16, 1884.	Bridgeport.	39	Bridgeport, Conn.	Private Co. B, 8th Regt. C. N. G., Aug. 11, 1866; Sergt.; dis. Sept. 4, 1871. 1st Lieut. and Q.-M. 4th Regt. C. N. G., May 16, 1884.	
<i>Paymaster.—First Lieutenant.</i> George S. Rowe, Winchester; November 2, 1878.	W. Winsted.	39	Brooklyn, N. Y.	Private Co. I, 4th Regt. C. N. G., Feb. 6, 1872; Corp.; Sergt. June 18, 1877; 1st Lieut. and Paymaster 4th Regt. C. N. G., Nov. 2, 1878.	
<i>Surgeon.—Major.</i> George L. Porter, Bridgeport; March 8, 1887.	Bridgeport.	49	Concord, N. H.	. . . . .	Acting Asst. Surg. U. S. A. April, 1862; 1st Lieut. and Asst. Surgeon U. S. A., July 17, 1862; Capt. 1867; res. July 16, 1868. Wounded Boonsboro, Md. Brevet Capt. and brevet Major U. S. A., March 13, 1865.
<i>Asst. Surgeon.—First Lieutenant.</i> Charles S. Murray, Norwalk; August 16, 1885.	Norwalk.	37	Ireland.		
<i>Inspector of Rifle Practice.—Captain.</i> Samuel C. Kingman, Bridgeport; July 31, 1876.	Bridgeport.	57	Wakefield, Mass.	Private Battery B (Bridgeport), C. M., Sept. 15, 1862; 3d Sergt. Sept. 29, 1862; 1st Sergt. Feb. 1, 1864; 1st Lieut. Sept. 6, 1865; res. Mar. 16, 1886. Capt. and I. R. P. 4th Regt. C. N. G., July 31, 1876.	

<p><i>Signal Officer.—First Lieutenant.</i> William W. Starr, Jr., Bridgeport; March 4, 1885.</p>	Bridgeport.	39	Derby, Conn.	
<p><i>Chaplain.</i> Robert G. S. McNeille, Bridgeport; May 30, 1884.</p>	Bridgeport.	42	Philadelphia, Pa.	
<p>COMPANY B.—BRIDGEPORT. <i>Captain.</i> George W. Cornell, Bridgeport; July 13, 1880.</p>	Bridgeport.	39	Sing Sing, N. Y.	<p>Private Co. B, 8th Regt. C. N. G., Dec. 18, 1865; Corp. April 2, 1867; 1st Sergt.; dis. Jan. 30, 1871. Re-en. Mar. 1, 1871; Sergt. (changed to Co. B, 4th Regt., Aug. 1, 1871); 2d Lieut. Aug. 11, 1874; 1st Lieut. Nov. 21, 1876; Capt. July 13, 1880.</p>
<p><i>First Lieutenant.</i> Charles H. Gibner, Bridgeport; Feb. 8, 1887.</p>	Bridgeport.	32	Stony Brook, L. I.	<p>Private Co. B, 4th Regt. C. N. G., Nov. 28, 1876; Corp. April 25, 1877; 5th Sergt. Feb. 15, 1881; dis. Nov. 29, 1881. Re-en. Nov. 29, 1881; 3d Sergt. Jan. 31, 1882; 2d Sergt. May 13, 1882; 1st Sergt. Jan. 2, 1883; dis. Nov. 29, 1883. Re-en. Nov. 29, 1883; 2d Lieut. June 10, 1884; 1st Lieut. Feb. 8, 1887.</p>
<p><i>Second Lieutenant.</i> Garrie P. Sanger, Bridgeport; February 8, 1887.</p>	Bridgeport.	28	Bridgeport, Conn.	<p>Private Co. B, 4th Regt. C. N. G., Aug. 5, 1879; Corp. Mar. 15, 1881; Sergt. May 1, 1883; dis. Aug. 5, 1884. Re-en. Aug. 5, 1884; Sergt.; 1st Sergt. Nov. 17, 1885; dis. Aug. 5, 1886. Re-en. Aug. 5, 1886; 1st Sergt.; 2d Lieut. Feb. 8, 1887.</p>

CONNECTICUT NATIONAL GUARD. FOURTH REGIMENT (INFANTRY).—CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
COMPANY C.—STAMFORD. <i>Captain.</i> William F. Daniel, Stamford; December 26, 1884.	Stamford.	30	Stamford, Conn.	Private 7th Regt. N. G. S. N. Y., Oct. 8, 1880; Corp. Jan. 13, 1882; dis. Oct. 20, 1885. Private Co. C, 4th Regt. C. N. G., Dec. 19, 1884; Capt. Dec. 26, 1884.	
<i>First Lieutenant.</i> William B. Cochrane, Stamford; December 26, 1884.	Stamford.	54	Haverhill, Mass	Private Illinois Militia (Chicago), Sept. 1, 1861; Sergt., 1862; 2d Lieut., 1863; dis. April 4, 1864. Private Co. C, 4th Regt. C. N. G., De- cember 19, 1884; 1st Lieut. December 26, 1884.	First Lieut. Co. D, 134th Regt Ill. Vols. April 4, 1864; Capt. April 20, 1864; res. June 4, 1864.
<i>Second Lieutenant.</i> Harry N. Covell, Stamford; December 26, 1884.	Stamford.	25	Troy, N. Y.	Private Co. C, 4th Regt. C. N. G., De- cember 19, 1884; 2d Lieut. December 26, 1884.	
COMPANY D.—SO. NORWALK. <i>Captain.</i> Russell Frost, Norwalk; February 17, 1886.	So. Norwalk.	37	Troy, N. Y.,	First Lieut. Co. D, 4th Regt. C. N. G., Jan. 12, 1886; Capt. Feb. 17, 1886.	
<i>First Lieutenant.</i> Cornelius Elwood, Norwalk; February 17, 1886.	Norwalk.	49	Westport, Conn.	Private Co. D, 4th Regt. C. N. G., Feb. 28, 1876; Corp. Dec. 1, 1877; Sergt.; dis. Mar. 17, 1881, Re-en. March 18, 1881; 3d Sergt July 18, 1881; 2d Sergt. Dec. 19, 1882; dis. March 18, 1883. Re-en. March 23, 1883; Sergt.; 1st Lieut. Feb. 7, 1886.	Private Co. A, 8th Regt. Conn. Vols. Sept. 25, 1861; Corp. Nov. 2, 1861. Re-en. Dec. 24, 1863; M. O. Dec. 25, 1865.

<p><i>Second Lieutenant.</i> John McGraw, Norwalk; September 3, 1886.</p>	So. Norwalk.	47	New York, N. Y.	Private Co. D, 4th Regt. C. N. G., Feb. 28, 1876; Corp. Dec. 1, 1877; dis. Mar. 17, 1881. Re-en. Mar. 20, 1885; Corp. Aug. 18, 1885; Q. M. Sergt. Jan. 8, 1886; 1st Sergt. June 18, 1886; 2d Lieut. Sept. 3, 1886.	Private Co. I, 82d Regt. N. Y. Vols. April 20, 1861; dis. disab. Dec. 5, 1862.
<p>COMPANY E.—BRIDGEPORT. <i>Captain.</i> James Sheridan, Bridgeport; December 31, 1880.</p>	Bridgeport.	38	Ireland.	Private Co. E, 8th Regt. C. N. G., Aug. 11, 1868; Corp.; Sergt. 1869; 2d Lieut. Jan. 20, 1871 (changed to Co. E, 4th Regt. Aug. 1, 1871); 1st Lieut. May 30, 1874; res. Feb. 11, 1879. 1st Lieut. Co. E, 4th Regt. C. N. G., Feb. 24, 1879; Capt. Dec. 31, 1880.	
<p><i>First Lieutenant.</i> James Donnelly, Bridgeport; December 31, 1880.</p>	Bridgeport.	37	Ireland.	Private Co. E, 8th Regt. C. N. G., April 17, 1871; (changed to Co. E, 4th Regt. Aug. 1, 1871); Corp.; Sergt.; 2d Lieut. Feb. 25, 1876; 1st Lieut. Dec. 31, 1880.	
<p><i>Second Lieutenant.</i> John J. Glennon, Bridgeport; March 25, 1881.</p>	Bridgeport.	36	Redding, Conn.	Private Co. E, 4th Regt. C. N. G., Feb. 7, 1876; Corp. Aug. 21, 1877; Sergt. Aug. 19, 1880; dis. March 17, 1881. Re-en. March 21, 1881; Sergt.; 2d Lieut. March 25, 1881.	
<p>COMPANY F.—NORWALK. <i>Captain.</i> Addison A. Betts, Norwalk; May 4, 1880.</p>	Norwalk.	47	Wilton, Conn.	Private Co. D, 4th Regt. C. N. G., Aug. 2, 1872; 2d Lieut. July 17, 1874; 1st Lieut. May 14, 1875; Capt. Co. F, May 4, 1880.	

CONNECTICUT NATIONAL GUARD. FOURTH REGIMENT (INFANTRY). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>First Lieutenant.</i> Harvey M. Kent, Norwalk; August 8, 1884.	Norwalk.	29	North Salem, N. Y.	Private Co. F, 4th Regt. C. N. G., May 1, 1880; Corp. May 20, 1880; 2d Lieut. July 15, 1881; 1st Lieut. Aug. 8, 1884.	
<i>Second Lieutenant.</i> Henry Matheis, Norwalk; June 11, 1886.	Norwalk.	30	Norwalk, Conn.	Private Co. D, 4th Regt. C. N. G., July 9, 1875; dis. Aug. 16, 1880. Private Co. F, 4th Regt. C. N. G., Sept. 30, 1880; Musician; dis. Sept. 30, 1882. Re-en. Oct. 2, 1882; Musician; dis. Oct. 2, 1884. Re-en. Oct. 3, 1884 Musician; 2d Lieut. June 11, 1886.	
COMPANY G.—DANBURY. <i>Captain.</i> Frank R. Nash, Danbury; July 14, 1885.	Danbury.	48	Norwalk, Conn.	2d Lieut. Co. G, 4th Regt. C. N. G., Dec. 11, 1882; 1st Lieut. June 25, 1883; Capt. July 14, 1885.	Private Co. D, 7th Regt. Conn. Vols. Sept. 5, 1861; Corp. Sept. 1, 1862; capt'd prisoner of war, May 16, 1864; paroled March 4, 1865; M. O. May 22, 1865.
<i>First Lieutenant.</i> George L. Stevens, Danbury; May 29, 1886.	Danbury.	25	England.	Private Co. G, 4th Regt. C. N. G., Aug. 7, 1883; Corp. Jan. 19, 1885; Sergt. Nov. 15, 1885; 1st Lieut. May 29, 1886.	
<i>Second Lieutenant.</i> William J. Phillips, Danbury; Oct. 8, 1886.	Danbury.	28	Redding, Conn.	Private Co. G, 4th Regt. C. N. G., July 29, 1884; Corp. Aug. 10, 1885; Sergt. Aug. 16, 1886; 2d Lieut. Oct. 8, 1886.	

COMPANY I.—WEST WINSTED. <i>Captain.</i> Edward Finn, Winchester; August 20, 1884.	W. Winsted.	41	Ireland.	Private Co. I, 4th Regt. C. N. G., Feb. 6, 1872; Corp.; Sergt. Jan. 8, 1873; dis. May 6, 1877. Re-en. June 7, 1877; 1st Sergt. Aug. 10, 1877; 2d Lieut. Jan. 29, 1879; 1st Lieut. April 5, 1880; Capt. May 20, 1881; res. Jan. 30, 1884. Capt. Co. I, 4th Regt. C. N. G., Aug. 20, 1884.	Private Co. F, 16th Regt. Mass. Vols., July 15, 1863; Corp.; wounded May 6, 1864; dis. disab. Aug. 15, 1865.
	W. Winsted.	47	Gt. Barrington, Mass.	Private Co. I, 4th Regt. C. N. G., Feb. 18, 1874; Corp. June 17, 1877; Sergt. March 31, 1879; dis. April 18, 1879. Re-en. April 18, 1879; Sergt.; dis. April 17, 1881. Re-en. May 19, 1881; Sergt.; 2d Lieut. April 21, 1883; 1st Lieut. Feb. 18, 1884.	
George E. Wright, Winchester; February 18, 1884. <i>First Lieutenant.</i> Michael J. Finn, Winchester; February 18, 1884. <i>Second Lieutenant.</i> COMPANY K.—STRATFORD. <i>Captain.</i> Eugene Morehouse, Stratford; July 27, 1886.	W. Winsted.	28	Winchester, Conn.	Private Co. I, 4th Regt. C. N. G., Feb. 4, 1878; dis. Feb. 4, 1883. Re-en May 11, 1883; Sergt. Oct. 1, 1883; 2d Lieut. Feb. 18, 1884.	
	Stratford.	33	Huntsville, Ala.	Private Co. K, 4th Regt. C. N. G., Nov. 7, 1871; Corp. May 5, 1874; dis. Jan. 2, 1877. Re-en. July 23, 1877; Sergt. Aug. 21, 1877; 1st Sergt. May 20, 1882; dis. July 22, 1882; 2d Lieut. July 25, 1882; 1st Lieut. July 24, 1883; Captain July 27, 1886.	
Stiles Judson, Jr., Stratford; July 27, 1886. <i>First Lieutenant.</i>	Stratford.	25	Stratford, Conn.	Private Co. K, 4th Regt. C. N. G., April 27, 1880; Corp. May 20, 1882; Sergt. Aug. 1, 1882; dis. April 27, 1885. Re-en. Apr. 28, 1885; Sergt.; 1st Sergt. Aug. 21, 1885; 1st Lieut. July 27, 1886.	

CONNECTICUT NATIONAL GUARD. FOURTH REGIMENT (INFANTRY).—CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
<i>Second Lieutenant.</i> George T. Jewell, Stratford; April 26, 1887.	Stratford.	23	Stratford, Conn	Private Co. K, 4th Regt. C. N. G., May 19, 1885; Corp. Aug. 18, 1886; 2d Lieut. April 26, 1887.	
<i>FOURTH MACHINE-GUN PLATOON.</i> — BRIDGEPORT.					
<i>Second Lieutenant.</i> Edwin F. Hall, Stratford; January 25, 1886.	Stratford.	28	Portland, Me.	Private Co. K, 4th Regt. C. N. G., March 18, 1879; Corp. March 18, 1881; 3d Sergt. May 20, 1882; 2d Sergt. Aug. 1, 1882; dis. March 18, 1884. Re-en. March 19, 1884; Sergt.; Q.-M. Sergt. 4th Regt. C. N. G., March 11, 1885; 2d Lieut. comd'g 4th M.-G. Plat. 4th Regt. C. N. G., Jan. 25, 1886.	

FIFTH BATTALION—(INFY.)
(COLORED.)

Major.

Frank M. Welch,
Bridgeport; August 11, 1881.

Bridgeport.

46 Philadelphia,
Pa.

Private Co. C, Independent Battalion,
C. N. G., May 14, 1879; Capt. May
27, 1879 (changed to 5th Bat'l'n Feb.
26, 1880); Major Aug. 11, 1881.

Private Co. F, 54th Regt.,
Mass. Vols. (col'd) April
23, 1863; Sergt.; w'd
July 18, 1863, Fort Wag-
ner, S. C.; 1st Sergt.
Jan. 17, 1865; 2d Lieut.
April 28, 1865; 1st Lieut.
June 25, 1865; dis. Aug.
20, 1865.
2d Lieut. 14th Regt. U. S.
C. T., Sept. 29, 1865;
not mustered; dis. Dec.
6, 1865.
2d Lieut. 34th Regt. U. S.
C. T., Dec. 21, 1865; de-
clined.

Adjutant.—Captain.

Charles S. Tatten,
Bridgeport; August 12, 1884.

Bridgeport.

42 Hartford,
Conn.

Capt. and Adjt. Ind'p't Bat'l'n C. N. G.,
Dec. 29, 1879 (changed to 5th Bat'l'n
Feb. 26, 1880); hon. dis. Sept. 15,
1881.
Capt. and Adjt. 5th Bat'l'n, C. N. G.,
Aug. 12, 1884.

Private Co. A, 29th Regt.
Conn. Vols. (col'd) Dec.
2, 1863; Corp. Jan.,
1864; Sergt. April 30,
1864; 1st Sergt. July 6,
1864; M. O. Nov. 25,
1865.

Quartermaster.—First Lieutenant.
William P. H. Cross,
Hartford; September 15, 1881.

Hartford.

40 Hartford,
Conn.

Assistant Surgeon.—First Lieutenant.
William H. Donaldson,
Fairfield; August 28, 1883.

Fairfield.

28 W. Springf'd,
Mass.

CONNECTICUT NATIONAL GUARD. FIFTH BATTALION (INFANTRY, COLORED). — CONTINUED.

ORGANIZATION, NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
COMPANY A.—NEW HAVEN. <i>Captain.</i> Daniel S. Lathrop, Birmingham; April 28, 1884.	Birmingham.	41	New Haven, Conn.	Private Co. A, 5th Bat'l'n C. N. G., Jan. 4, 1881; Capt. April 28, 1884.	Private Co. A, 29th Regt. Conn. Vols. (col'd) Nov. 18, 1863; Sergt. Dec., 1863; 1st Sergt. Jan., 1864; Regimental Q.-M.; Sergt. March 20, 1864; dis. Nov. 25, 1865.
<i>First Lieutenant.</i> Daniel Tilghman, New Haven; May 1, 1885.	New Haven.	38	Boston, Mass.	Private Co. A, Ind'p't Bat'l'n C. N. G., May 14, 1879; Corp. May 17, 1879 (changed to 5 h Batn. Feb. 26, 1880); Sergt. Nov. 22, 1881; 2d Lieut. April 28, 1884; 1st Lieut. May 1, 1885.	
<i>Second Lieutenant.</i> Charles E. Fuller, New Haven; January 7, 1887.	New Haven.	28	New Haven, Conn.	Private Co. A, Ind'p't Bat'l'n C. N. G., May 14, 1879; dis. Nov. 5, 1880. Private Co. A, 5th Battn. C. N. G., Dec. 11, 1880; Corp. Aug. 3, 1883; Sergt. Sept. 22, 1884; dis. Dec. 11, 1885. Re en. Dec. 17, 1885; 1st Sergt. Sept. 17, 1886; 2d Lieut. Jan. 7, 1887.	
COMPANY B.—HARTFORD. <i>Captain.</i> Lloyd G. Seymour, Hartford; May 21, 1879.	Hartford.	56	Lebanon, Conn.	Private Co. B, Ind'p't Bat'l'n C. N. G., May 14, 1879; Capt. May 21, 1879 (changed to 5th Bat'l'n C. N. G., Feb. 26, 1880).	Private Co. E, 29th Regt. Conn. Vols. (col'd) Dec. 15, 1863; 1st Sergt.; dis. disab. March 27, 1865.

<p><i>First Lieutenant.</i> L. Eugene Seymour, Hartford; Dec. 19, 1881.</p> <p><i>Second Lieutenant.</i> John F. Jones, Hartford; Dec. 19, 1881.</p> <p>COMPANY C.—BRIDGEPORT. <i>Captain.</i> Charles H. Walker, Bridgeport; Feb. 20, 1884.</p> <p><i>First Lieutenant.</i> Samuel J. Benedict, Bridgeport; Feb. 20, 1884.</p> <p><i>Second Lieutenant.</i> William H. Latimer, Bridgeport; Dec. 11, 1884.</p>	Hartford.	31	Hartford, Conn.	Private Co. B, Ind'p't Bat'l'n C. N. G., May 14, 1879; 2d Lieut. May 21, 1879 (changed to 5th Bat'l'n Feb. 26, 1880); 1st Lieut. Dec. 19, 1881.
	Hartford.	38	Petersburg, Va.	Private Co. B, Ind'p't Bat'l'n C. N. G., May 14, 1879; Corp. July 1879 (changed to 5th Bat'l'n Feb. 26, 1880); Sergt. June 2, 1880; 2d Lieut. Dec. 19, 1881.
	Bridgeport.	35	Washington, N. C.	Private Co. C, Ind'p't Bat'l'n C. N. G., May 14, 1879; Sergt. (changed to 5th Bat'l'n Feb. 26, 1880); 2d Lieut. Aug. 29, 1881; 1st Lieut. Sept. 3, 1883; Capt. Feb. 20, 1884.
	Bridgeport.	34	West Africa	Private Co. C, 5th Bat'l'n C. N. G., July 16, 1883; 1st Lieut. Feb. 20, 1884.
	Bridgeport.	42	Chelsea, Mass.	Private Co. C, Ind'p't Bat'l'n C. N. G., May 14, 1879; Sergt. (changed to 5th Bat'l'n Feb. 26, 1880); 2d Lieut. March 4, 1880; Capt. Aug. 29, 1881; res. Feb. 5, 1884. Private Co. C, 5th Bat'l'n C. N. G., Nov. 20, 1884; 2d Lieut. Dec. 11, 1884.

Seaman U. S. Sloop "San
Jacinto" Feb. 23, 1862;
trans. to frigate "Wa-
bash"; dis. 1865; exp.
term. ser.
Private 39th U. S. C. T.
(Inf'y) July 11, 1867;
Corp.; dis. July 11,
1870; exp. term ser.

REGISTER — JUDGE ADVOCATES.

NAME, RESIDENCE, RANK, AND DATE OF RANK.	P. O. ADDRESS.	AGE.	BIRTHPLACE.	SERVICE.	
				In National Guard or Militia of this or any other State.	In U. S. Army or Navy.
JUDGE ADVOCATES.					
FIRST REGIMENTAL DISTRICT. (Vacancy.)					
SECOND REGIMENTAL DISTRICT. Major H. Lynde Harrison, New Haven; June 18, 1872.	New Haven.	49	New Haven, Conn.	First Lieut. and Paymaster 2d Regt. C. N. G., Aug. 18, 1865; Capt. and A. D. C. 2d Brig. C. N. G., July 2, 1866; dis. Aug. 1, 1871. Major and Judge Advocate 2d Regt. district, June 18, 1872.	Regimental Quartermaster 27th Regt. Conn. Vols. Oct. 22, 1862; res. Jan. 20, 1863.
THIRD REGIMENTAL DISTRICT. Major John A. Tibbits, New London; June 1, 1881.	New London.	42	New London, Conn	Major and Judge Advocate 3d Regt. district, Sept. 24, 1872. Capt. Co. I, 3d Regt. C. N. G., Nov. 19, 1878; res. Nov. 10, 1879. Major and Judge Advocate 3d Regt. district, June 1, 1881.	Private Co. H, 14th Regt. Conn. Vols. July 12, 1862; 1st Sergt.; w'd Sept. 17, 1862, Antietam, Md.; 2d Lieut. Co. F, Dec. 21, 1862; w'd July 3, 1863, Gettysburg, Pa.; dis. disab. July 17, 1863. Capt. and Com'y of Sub- sistence, U. S. Vols., May 28, 1864; M. O. July 31, 1864. Brevet Major Vols.
FOURTH REGIMENTAL DISTRICT. Major Samuel Fessenden, Stamford; Aug. 30, 1872.	Stamford.	40	Rockland, Me.		

[2.]
MILITARY ENROLLMENT.

HARTFORD COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Hartford,	6,936	5,114
Avon,	72	66
Berlin,	313	248
Bloomfield,	173	150
Bristol,	939	631
Burlington,	147	121
Canton,	250	204
East Granby,	70	55
East Hartford,	509	330
East Windsor,	280	238
Enfield,	781	572
Farmington,	368	252
Glastonbury,	457	351
Granby,	194	164
Hartland,	87	73
Manchester,	767	591
Marlborough,	40	34
New Britain,	1,892	1,273
Newington,	93	66
Plainville,	258	170
Rocky Hill,	99	81
Simsbury,	241	187
Southington,	814	525
South Windsor,	243	199
Suffield,	289	246
West Hartford,	187	147
Wethersfield,	215	113
Windsor,	379	282
Windsor Locks,	334	260
Total,	17,427	12,743

TOLLAND COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Tolland,	81	65
Andover,	57	43
Bolton,	52	43
Coventry,	190	174
Columbia,	88	75
Ellington,	125	100
Hebron,	120	97
Mansfield,	220	175
Somers,	176	143
Stafford,	509	383
Union,	81	60
Vernon,	1,108	832
Willington,	128	97
Total,	2,935	2,287

NEW HAVEN COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
New Haven,	10,175	8,050
Branford,	508	352
Bethany,	58	49
Beacon Falls,	72	58
Cheshire,	238	180
Derby,	2,084	1,482
East Haven,	69	56
Guilford,	340	219
Hamden,	428	352
Madison,	173	122
Meriden,	2,688	2,182
Middlebury,	65	56
Milford,	450	305
Naugatuck,	686	542
North Branford,	143	96
North Haven,	236	182
Orange,	400	296
Oxford,	90	69
Prospect,	46	45
Seymour,	304	196
Southbury,	142	117
Wallingford,	780	451
Waterbury,	2,988	1,959
Woodbridge,	123	90
Wolcott,	59	53
Total,	23,345	17,559

MIDDLESEX COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Middletown,	1,414	1,064
Chatham,	265	211
Chester,	143	130
Clinton,	176	129
Cromwell,	147	124
Durham,	107	78
East Haddam,	411	350
Essex,	335	231
Haddam,	220	169
Killingworth,	93	74
Middlefield,	132	112
Old Saybrook,	127	97
Portland,	222	186
Saybrook,	176	142
Westbrook,	102	76
Total,	4,070	3,173

NEW LONDON COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
New London,	1,755	959
Norwich,	2,122	1,329
Bozrah,	80	67
Colchester,	365	279
East Lyme,	146	122
Franklin,	58	45
Griswold,	322	261
Groton,	585	456
Lebanon,	209	178
Ledyard,	159	119
Lisbon,	69	58
Lyme,	124	96
Montville,	333	291
North Stonington,	240	177
Old Lyme,	145	120
Preston,	352	230
Salem,	87	68
Stonington,	1,028	632
Sprague,	159	114
Voluntown,	95	75
Waterford,	322	221
Total,	8,755	5,897

WINDHAM COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Windham,	947	604
Ashford,	129	108
Brooklyn,	129	96
Canterbury,	122	103
Chaplin,	62	43
Eastford,	85	68
Hampton,	103	77
Killingly,	760	479
Plainfield,	321	287
Pomfret,	153	117
Putnam,	508	279
Sterling,	94	86
Scotland,	55	43
Thompson,	367	287
Woodstock,	240	184
Total,	4,075	2,861

FAIRFIELD COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Fairfield,	391	290
Bethel,	540	292
Bridgeport,	5,002	4,124
Brookfield,	100	100
Danbury,	1,983	1,071
Darien,	217	169
Easton,	127	100
Greenwich,	920	724
Huntington,	463	331
Monroe,	115	93
New Canaan,	293	184
Newtown,	363	255
New Fairfield,	59	51
Norwalk,	2,055	1,165
Redding,	140	110
Ridgefield,	200	178
Stamford,	1,580	962
Stratford,	449	264
Sherman,	76	72
Trumbull,	137	113
Weston,	86	73
Westport,	465	267
Wilton,	180	134
Total,	15,941	11,122

LITCHFIELD COUNTY.

TOWNS.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Litchfield,	408	324
Barkhamsted,	102	82
Bethlehem,	74	60
Bridgewater,	90	74
Canaan,	140	123
Colebrook,	105	95
Cornwall,	156	137
Goshen,	113	94
Harwinton,	98	74
Kent,	140	126
Morris,	72	65
New Hartford,	304	241
New Milford,	430	338
Norfolk,	143	130
North Canaan,	156	126
Plymouth,	352	280
Roxbury,	105	90
Salisbury,	375	233
Sharon,	259	206
Torrington,	555	444
Thomaston,	348	254
Washington,	198	163
Warren,	61	50
Watertown,	233	184
Winchester,	812	474
Woodbury,	214	187
Total,	6,043	4,654

RECAPITULATION BY COUNTIES.

COUNTIES.	Inactive Militia.	No. of Persons assessed Commutation Tax of \$2.00.
Hartford,	1,7427	12,743
Tolland,	2,935	2,287
New Haven,	23,345	17,559
Middlesex,	4,070	3,173
New London,	8,755	5,897
Windham,	4,075	2,861
Fairfield,	15,941	11,122
Litchfield,	6,043	4,654
Total,	82,591	60,296

[3]

ABSTRACT OF MUSTER-ROLLS, NOVEMBER, 1886, AND NOVEMBER, 1887.

FIRST REGIMENT.

(1886.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Field ^d , Staff and Band,..	Hartford,....	10	5	17	....	32	1	1	2	34	35
Company A,..	Hartford,....	3	14	1	35	53	...	5	5	58	60
Company B,..	Hartford,....	3	13	2	43	61	...	4	4	65	55
Company D,..	New Britain,	2	10	2	40	54	1	7	8	62	49
Company E,..	New Britain,	3	13	2	38	56	...	7	7	63	57
Company F,..	Hartford,....	3	11	2	42	58	...	4	4	62	64
Company G,..	S. Manchester,	3	11	1	43	58	...	3	3	61	61
Company H,..	Hartford,....	3	12	2	42	59	...	3	3	62	64
Company K,..	Hartford,....	3	14	2	41	60	...	1	1	61	62
*1st M.-G. Platoon,....	Hartford,....	1	3	....	5	9	...	...	...	9	...
Total,.....	.....	34	106	31	329	500	2	35	37	537	507

Per cent. present, 93.11; gain over 1885, 1.00 per cent.

* Organized since last muster.

SECOND REGIMENT.

(1886.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Field, Staff and Band,..	Wallingford,..	11	5	12	....	28	...	2	2	30	27
Company A,..	Waterbury,..	3	12	1	43	59	...	3	3	62	66
Company B,..	New Haven,..	3	13	2	37	55	...	8	8	63	52
Company C,..	New Haven,..	3	13	2	39	57	...	5	5	62	59
Company D,..	New Haven,..	3	14	2	48	67	...	...	...	67	67
Company E,..	New Haven,..	3	14	1	44	62	...	4	4	66	55
Company F,..	New Haven,..	3	12	2	36	53	...	1	1	54	51
Company G,..	Waterbury,..	3	12	2	37	54	...	4	4	58	57
Company H,..	Middletown,..	3	10	2	36	51	...	6	6	57	51
Company I,..	Meriden,....	3	12	2	43	60	...	4	4	64	56
Company K,..	Wallingford,..	3	13	1	43	60	...	1	1	61	56
2d M.-G. Platoon, ...	New Haven,..	1	3	....	3	7	...	2	2	9	8
Total, .....	.....	42	133	29	409	613	...	40	40	653	605

Per cent. present, 93.87; gain over 1885, 1.97 per cent.

THIRD REGIMENT. (1886.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Field, Staff, and Band,...	New London,	11	5	18	.....	34	...	2	2	36	36
Company B,...	Pawcatuck,...	3	9	2	28	42	...	7	7	49	56
Company C,...	Norwich,.....	2	12	1	26	41	...	6	6	47	58
Company D,...	New London,	3	9	2	33	47	...	12	12	59	42
Company E,...	Willimantic,...	3	11	1	32	47	...	13	13	60	53
*Company F,...	Daniels'ville	3	10	2	22	37	...	11	11	48	.....
Company G,...	Putnam,.....	3	13	2	32	50	...	4	4	54	51
Company I,...	New London,	3	11	1	35	50	...	11	11	61	41
3d M.-G. Platoon,...	New London,	1	3	....	4	8	...	....	....	8	9
Total,.....	.....	32	83	29	212	356	...	66	66	422	400†

Per cent. present, 84.36; gain over 1885, 9.86 per cent.

*Organized since last muster.

† Company A (Mystic Bridge) disbanded since last muster.

FOURTH REGIMENT. (1886.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Field, Staff, and Band,...	Bridgeport,...	11	5	20	.....	36	...	....	....	36	36
Company B,...	Bridgeport,...	3	14	1	32	50	...	8	8	58	62
Company C,...	Stamford,....	3	14	2	43	62	...	1	1	63	64
Company D,...	So. Norwalk,...	3	14	2	42	61	...	5	5	66	67
Company E,...	Bridgeport,...	3	14	2	31	50	...	8	8	58	61
Company F,...	Norwalk,....	3	13	....	31	47	...	7	7	54	50
Company G,...	Danbury,....	3	14	2	33	52	...	13	13	65	65
Company I,...	Winsted,....	3	11	2	37	53	...	2	2	55	56
Company K,...	Stratford,....	3	14	2	26	45	...	9	9	54	59
4th M. G. Platoon, ...	Bridgeport,...	1	2	...	5	8	...	1	1	9	9
Total,.....	.....	36	115	33	280	464	...	54	54	518	529

Per cent. present, 89.58; gain over 1885, 3.95 per cent.

FIFTH BATTALION.

(1886.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Field & Staff,	Bridgeport,...	4	2	....	.....	6	...	1	1	7	7
Company A,...	New Haven,...	2	12	2	36	52	1	11	12	64	61
Company B,...	Hartford,....	3	13	2	41	59	...	3	3	62	60
Company C,...	Bridgeport,...	2	13	2	33	50	1	11	12	62	59
Total,.....	.....	11	40	6	110	167	2	26	28	195	187

Per cent. present, 85.64; loss from 1885, 3.13 per cent.

BATTERY A, LIGHT ARTILLERY.

(1886.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Buglers.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Capt. & N.C.S.	Guilford,....	1	3	....	.....	4	...	1	1	5	3
1st Platoon,...	Guilford,....	2	6	1	20	29	...	3	3	32	32
2d Platoon,...	Branford,....	2	5	1	26	34	...	4	4	38	38
Total,.....	.....	5	14	2	46	67	...	8	8	75	73

Per cent. present, 89.33; loss from 1885, 3.82 per cent.

RECAPITULATION (November, 1886).

BRIGADE C. N. G.	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1886.	1885.
Brig-General..	Middletown...	10	2	....	.....	12	...	....	....	12	12
and Staff,...											
1st Regiment,	1st Cong. Dis.,	34	106	31	329	500	2	35	37	537	507
2d Regiment,	2d Cong. Dis.,	42	133	29	409	613	...	40	40	653	605
3d Regiment,	3d Cong. Dis.,	32	83	29	212	356	...	66	66	422	400
4th Regiment,	4th Cong. Dis.,	36	115	33	280	464	...	51	54	518	529
5th Battalion,	State at Large,	11	40	6	110	167	2	26	28	195	187
Battery A,...	2d Cong. Dis.,	5	14	2	46	67	...	8	8	75	73
Total,.....	.....	170	493	130	1386	2179	4	229	233	2412	2313

Per cent. present for Brigade, 90.34; gain over 1885, 3.01 per cent.

NOVEMBER, 1887.

FIRST REGIMENT.

(1887.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Field, Staff and Band...	Hartford,....	10	6	18	....	34	1	....	1	35	34
Company A...	Hartford,....	3	12	2	45	62	...	5	5	67	58
Company B...	Hartford,....	3	12	1	47	63	...	1	1	64	65
Company D...	New Britain,	3	12	3	35	53	...	8	8	61	62
Company E...	New Britain,	3	12	3	43	61	...	7	7	68	63
Company F...	Hartford,....	3	13	2	42	60	...	3	3	63	62
Company G...	S. Manchester,	3	13	3	45	64	...	4	4	68	61
Company H...	Hartford,....	3	14	1	41	59	...	7	7	66	62
Company K...	Hartford,....	3	12	2	35	52	...	8	8	60	61
1st M.-G. Plat.,	Hartford,....	1	4	....	4	9	...	....	....	9	9
Total, .....	.....	35	110	35	337	517	1	43	44	561	537

Per cent. present, 92.16; loss from 1886, .95 per cent.

SECOND REGIMENT.

(1887.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Field, Staff and Band...	Wallingford,.	10	6	17	....	33	1	2	3	36	30
Company A...	Waterbury, ..	3	14	2	44	63	...	2	2	65	62
Company B...	New Haven, .	3	14	3	41	61	...	4	4	65	63
Company C...	New Haven, .	3	12	3	33	51	...	7	7	58	62
Company D...	New Haven, .	3	13	2	46	64	...	4	4	68	67
Company E...	New Haven, .	3	14	....	46	63	...	3	3	66	66
Company F...	New Haven, .	3	12	2	38	55	...	5	5	60	54
Company G...	Waterbury, ..	2	12	2	41	57	...	5	5	62	58
Company H...	Middletown,.	3	11	3	39	56	...	....	....	56	57
Company I...	Meriden,.....	3	13	3	47	66	...	1	1	67	64
Company K...	Wallingford, .	3	10	1	39	53	...	9	9	62	61
2d M.-G. Plat.,	New Haven, .	1	4	....	3	8	...	....	....	8	9
Total, .....	.....	40	135	38	417	630	1	42	43	673	653

Per cent. present, 93.61; loss from 1886, .26 per cent.

THIRD REGIMENT.

(1887.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Field, Staff and Band, ..	New London, ..	11	5	15	....	31	...	5	5	36	36
* Company A, ..	New London, ..	3	14	3	27	47	...	8	8	55	....
Company B, ..	Pawtucket, ...	3	11	2	30	46	...	13	13	59	49
Company C, ..	Norwich,	3	11	1	23	38	...	8	8	46	47
Company D, ..	New London, ..	3	13	2	29	47	...	9	9	56	59
Company E, ..	Willimantic, ...	3	14	2	33	52	...	5	5	57	60
Company F, ..	Danielso'ville, ..	2	11	3	25	41	...	8	8	49	48
Company G, ..	Putnam,	3	9	3	34	49	...	6	6	55	54
Company I, ...	New London, ..	3	12	2	29	46	...	15	15	61	61
3d M.-G. Plat.,	New London, ..	1	3	....	2	6	...	2	2	8	8
Total, .....	.....	35	103	33	232	403	...	79	79	482	422

Per cent. present, 83.61; loss from 1886, .75 per cent.

* Organized since last muster.

FOURTH REGIMENT.

(1887.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Field, Staff and Band, ..	Bridgeport, ...	10	4	20	....	34	1	2	3	37	36
Company B, ..	Bridgeport, ...	3	13	3	36	55	...	10	10	65	58
Company C, ..	Stamford,	3	13	2	39	57	...	5	5	62	63
Company D, ..	So. Norwalk, ..	3	10	3	43	59	...	5	5	64	66
Company E, ..	Bridgeport, ..	3	13	1	33	50	...	5	5	55	58
Company F, ..	Norwalk,	3	13	1	32	49	...	10	10	59	54
Company G, ..	Danbury,	3	14	3	44	64	...	4	4	68	65
Company I, ...	Winsted,	3	11	1	32	47	...	12	12	59	55
Company K, ..	Stratford,	3	14	2	21	40	...	8	8	48	54
4th M.-G. Plat.,	Bridgeport, ...	1	3	....	4	8	...	1	1	9	9
Total, .....	.....	35	108	36	284	463	1	62	63	526	518

Per cent. present, 88.02; loss from 1886, 1.56 per cent.

FIFTH BATTALION.

(1887.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Field & Staff,...	Bridgeport,...	4	3	....	....	7	...	2	2	9	7
Company A,...	New Haven,...	3	9	3	28	43	...	12	12	55	64
Company B,...	Hartford,....	3	13	3	37	56	...	4	4	60	62
Company C,...	Bridgeport,...	3	13	2	22	40	...	19	19	59	62
Total,.....	.....	13	38	8	87	146	...	37	37	183	195

Per cent. present, 79.78 ; loss from 1886, 5.86 per cent.

BATTERY A, LIGHT ARTILLERY.

(1887.)

	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Buglers.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Capt.&N.C.S.,	Guilford,....	1	4	....	....	5	...	...	...	5	5
1st Platoon,...	Guilford,	2	5	....	21	28	...	3	3	31	32
2d Platoon,...	Branford,	2	7	....	30	39	...	...	...	39	38
Total,.....	.....	5	16	....	51	72	...	3	3	75	75

Per cent. present, 96.00 ; gain over 1886, 6.67 per cent.

RECAPITULATION (November, 1887).

BRIGADE C. N. G.	LOCALITY.	PRESENT.					ABSENT.			AGGREGATE.	
		Commissioned Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Officers.	Enlisted Men.	Total.	1887.	1886.
Brig.-General and Staff, ..	Middletown, ..	10	3	....	....	13	....	....	....	13	12
1st Regiment, 1st Cong. Dis.,		35	110	35	337	517	1	43	44	561	537
2d Regiment, 2d Cong. Di.,		40	135	38	417	630	1	42	43	673	653
3d Regiment, 3d Cong. Dis.,		35	103	33	232	403	...	79	79	482	422
4th Regiment, 4th Cong. Dis.,		35	108	36	284	463	1	62	63	526	518
5th Battalion, State at Large,		13	38	8	87	146	...	37	37	183	195
Battery A, ... 2d Cong. Dis.,		5	16	....	51	72	...	3	3	75	75
Total, .....	.....	173	513	150	1408	2244	3	266	269	2513	2412

Per cent. present for Brigade, 89.30; loss from 1886, 1.04 per cent.

[5.]

REPORTS OF SURGEON-GENERAL, AND THE BRIGADE MEDICAL DIRECTOR,
C. N. G.

Report of Surgeon-General.

WILLIMANTIC, CONN., October 4, 1887.

To Brigadier-General FREDERICK E. CAMP,
Adjutant-General.

GENERAL:

I herewith transmit to you the interesting report of C. Purdy Lindsley, Lieutenant-Colonel and Medical Director, C. N. G., of the six days' duty at Camp Lounsbury, ending August 27, 1887. As will be shown by the report, the sanitary condition has been most satisfactory and effectual, while the health of the men has been most excellent; the greatest number sick during the encampment was twenty-nine, and the smallest was only one [1], making the average for the five days, 16.2.

The orders prior to the encampment, issued by me to the caterers, proved an effectual sanitary measure. I would most respectfully submit for your consideration the building of barracks, or the substitution of wall tents *vice* the small "A" tents now in use, both as a sanitary and economic measure. I would also urge the establishing of a trained hospital corps as a wise and imperative necessity, and one that would be of great value in time of action to our department, in rendering it most complete and effectual.

The subject of providing food for the men while in camp is also one of great importance, and I am strongly of the opinion, that but one caterer for our entire organization, with a carefully prepared table of diet, would be far preferable as a sanitary and economic measure, to our present system of providing for their wants.

I have the honor also to report that the following-named medical officers of the C. N. G. appeared before me for examination August 20, 1887, viz.:

Major George L. Porter, Surgeon Fourth Regiment.

First Lieutenant Carl E. Munger, Assistant Surgeon Second Regi-

ment. Both gentlemen passed a highly creditable and satisfactory examination.

In conclusion, I desire to thank sincerely the entire medical staff for their hearty co-operation and valuable assistance in placing our department where it is, not only in the foremost ranks of professional progress, but also of great value to the State.

I remain, very respectfully yours,

CHARLES JAMES FOX,

Surgeon-General.

Reports of Brigade Medical Director, C. N. G., 1886 and 1887.

NEW HAVEN, Sept. 23, 1886.

Brigadier-General H. P. GEIB,

Surgeon-General, State of Connecticut.

GENERAL:

I have the honor to make the following report of the encampment of the C. N. G., for the week ending August 28, 1886.

The chief work of the Medical Department, the prevention of sickness, was remarkably satisfactory. This result was undoubtedly largely influenced by four main causes, viz.: the almost uninterrupted fine weather, the sanitary condition of the camp, the careful attention and advice of the surgeons to the men under their care, and the obedience of the men to these instructions.

That one of the chief duties of the military surgeon to-day, either in civil or regular camps, lies in the prevention of disease, is unquestioned, and the State military authorities, in the record of the late encampment, may feel well assured of the ability of the regimental surgeons, and their hearty interest in the work. The sick rate for the encampment of 1885 was considered very good, and yet in 1886, with nearly double the number of men, it was hardly at all increased. The following table gives a brief summary of the consolidated morning reports of the surgeons for the two encampments:

	1885.	1886.
The greatest number reported sick on any one day, - - - -	16	16
The smallest number reported sick on any one day, - - - -	1	1
The average for the six days, - - - - -	7½	8½
Number of cases reported for the week by First Regiment, - - -	—	21
“ “ “ “ “ Second “ - - -	—	5
“ “ “ “ “ Third “ - - -	5	14
“ “ “ “ “ Fourth “ - - -	19	6
“ “ “ “ “ Fifth Battalion, - - -	5	0
“ “ “ “ “ Battery A, - - -	7	2

Of the forty-eight cases reported this year, three were reported in hospital, forty-three in quarters, and two were sent home for want of proper accommodations to care for them on the ground; and in this connection, I would most earnestly advocate the erection of a permanent hospital and dispensary combined, on the State camp ground, and for the following reasons, that each year we have from two to six or more men who are sick enough to require hospital care, and with such accommodation they could be removed from the noise and confusion of camp life, and that either in stormy or extreme hot or cold weather, they could be more readily and comfortably cared for. The medicines could be much more conveniently and economically dispensed, and the saving to the State in this one item of expense, over the present method, would pay the whole cost of the building in a very few years. There is already in the brigade enough medicine to nearly, if not altogether, stock such a dispensary for the first year, and in subsequent years, instead of buying a new stock for each regiment, the Surgeon-General could direct some competent druggist to supply such additional medicines or appliances as might be needed, and only such to be paid for at the end of the week as were used or damaged. This arrangement would abolish the present regimental medicine chest, for which would be substituted the smaller and more compact knapsack, filled only with a few desirable and non-perishable medicines and appliances required on a march.

There have been ordered this summer by the Surgeon-General, and are now in process of construction, two ambulances for the C. N. G. If now the field hospital and dispensary can be added to the State camp ground, we shall probably have the most completely equipped Medical Department of any State in the Union.

On field day there were three men carried home in the improved ambulance, two from exhaustion, and one slightly wounded in the front of thigh by small piece of shell. Of other casualties through

the week, one man had his face spattered with powder from discharge of gun, one slight bayonet wound, two sprains, and one rupture.

The meteorological record was kept throughout the week, observations being recorded five times a day, from which the following is a brief summary :

General direction of the wind, south, with the exception from Tuesday night to Thursday morning, when we had a northeast storm with very little rain during Tuesday night. Temperature varied from 51.5° to 88°. Barometer varied from 29.85 inches to 30 inches.

The sinks and kitchens were not in as good sanitary condition as they should have been, and were at no time properly cared for. At some of my inspections they were in very bad order. This subject is one that needs overhauling, as it bears directly on the health and comfort of every man in the camp; and which, with a little careful attention, can be so thoroughly accomplished. If I may be permitted to offer a suggestion, it would seem to me desirable that the men hired to keep these places in order, should be under the control of the Brigade Commander, through his department officer, the Medical Director, and not under the control of a man as busy as the Assistant Quartermaster-General. From this and last year's experience, it is a necessity to the cleanliness of the camp kitchens, that the State should provide sufficient water-tight barrels for the reception and removal of garbage to supply the caterers, so that they may have no excuse for using leaky ones, and baskets, or for throwing their refuse over the ground. The sinks should have more dry earth dumped in their rear for covering the excrement. Another sanitary reform needed very greatly for the comfort and health of the men is better ventilated tents. The "A" tents now in use are altogether overcrowded, and practically without ventilation when the flaps are drawn, as they must be to protect the men from the weather. In regular camps they are already abandoned for either permanent barracks or the shelter tent which is used on marches. If, however, they must continue in use by the C. N. G., they could be very materially improved by making an opening at the ridge-pole of suitable size, and providing the same with a proper hood to protect it from the weather. This would at least provide for a change of air when the flaps are drawn. The tent floors also are in bad condition, and add to the unwholesomeness of the confined air. During the late encampment, I had the privilege, through the courtesy of the Brigade Inspector, Major John B. Clapp, to inspect with him the

quarters of the men throughout the brigade, and with very few exceptions, the floors, from long use, were saturated with oils and fats from impromptu lunches and such other organic matter as must make the air offensive to breathe. It would be a most desirable step another year to furnish new floors for every "A" tent in use.

Respectfully submitted,

C. PURDY LINDSLEY, M. D.,

Lieutenant-Colonel and Medical Director, C. N. G.

NEW HAVEN, September 27, 1887.

Brigadier-General CHARLES JAMES FOX,
Surgeon-General, State of Connecticut.

GENERAL:—

I have the honor to report to you the work accomplished and observations made by the Medical Department at Camp Lounsbury for the six days' duty, ending August 27, 1887.

Orders issued by you prior to the encampment had a most salutary effect upon the caterers, and not during my connection with the National Guard has there been so cleanly a condition of the grounds, in and about the mess quarters and kitchens.

The garbage was regularly and frequently removed each day to the trenches, but there was at several kitchens a noticeable deficiency of suitable water-tight barrels for the reception of the waste, making it often difficult to lift the full barrels, or carry them without spilling. The system of trenches for the disposal of garbage was only fair. The trenches were too deep and were not properly cared for, being left throughout the day till night, or the following morning, before the day's collection was covered. Such a mass left exposed to the hot rays of the sun rapidly underwent decomposition, and offensive odors in that vicinity were very noticeable, and unnecessarily so.

The sinks were much better cared for than usual, but yet far from as perfect as is practicable. It is evident from past experiences that more and better men should be employed to do this part of the camp work, and that some competent and reliable man should be hired to see that it was done.

The stormy weather demonstrated more conspicuously than usual the overcrowding of the men in the small "A" tents. Nearly every

surgeon in this camp or others has called attention to this condition in his report of the camp, and urged the adoption of some improved means of shelter. These tents answer very well for fair, warm weather, but as soon as they are required to be closed against cold and rain, each with its quota of four men, the confined air rapidly becomes charged with the effete products from the lungs and skin of the occupants, and unfit for further respiration. This is particularly so in wet weather when the moisture swells the fibre of the canvas, completely obstructing what little ventilation might occur through the meshes when dry; also the evaporation from the damp bedding and clothes at such times materially assists to vitiate the air. This subject certainly should receive the attention of those in authority, and some way be devised to lessen or do away with the evil, either by the substitution of wall tents, an increased number [double] of "A" tents, or the building of barracks. The wall tent, it seems to me, with four men to a tent, would be far preferable both as to convenience and health.

We were indebted to the Assistant Quartermaster-General, Lieutenant-Colonel Morgan, for a very comfortable and commodious arrangement of regimental hospital tents, which proved very serviceable. That of the Fourth Regiment was particularly noticeable for its convenient and elegant arrangement of hospital stores.

The catering was generally satisfactory except in the Fifth Battalion, where Assistant Surgeon Donaldson, in his report, speaks of it as inferior to what it should have been. In this connection it would seem very desirable, both for the men and the cleanliness of the camp, if a general order could be issued from the Adjutant-General's office, requiring each regiment or battalion to employ but one caterer to feed the entire organization upon a diet to be previously arranged and agreed upon, the caterer to furnish sufficient bonds to insure his doing as agreed. With such an arrangement a good-sized, well-appointed kitchen should be built for each mess-house, and while it would insure a plainer diet than some might desire, it would nevertheless be wholesome, and with better cooking facilities, would be better cooked and served than by our present system.

Then, too, from the simplicity and character of the food, there would be less liability to disorders of the stomach and bowels amongst the men, and by collecting the at present numerous and incomplete kitchens into a large well appointed one, the sanitary condition of this part

of the camp would be improved, and the work of garbage removal lessened and simplified.

Inspections of the sanitary condition of the camp were made twice daily by the medical director, and the kitchens and sinks of each regimental organization were inspected three times daily by its medical officers. On Thursday, August 25th, an official inspection was made by the Secretary of the State Board of Health.

The following weather observations were recorded at brigade headquarters, showing very rapid and severe changes in the temperature, varying on Tuesday from 85° at 3 P.M., to 67° at 11 P.M., a difference of 18°, the highest temperature being but 85°, and the lowest 56°, an unusually cold and stormy week as compared with former encampments.

CAMP LOUNSBURY, AUG. 22 TO 27, 1887.	Hour of Observation.	Temperature.	Barometer.	Humidity.	Direction of Wind.	Condition of Weather.	Remarks.
MONDAY,	7 A.M.	71 75	29.90	71 -71.75	S.W.	Hazy.	Began to rain at [8.20.
	12 M.	73	29.85	72.5-73	S.W.-S.	Rain.	
	3 P.M.	73	29.80	72.5-73	S.W.-S.	Raining.	
	11 P.M.	69	29.80	68.5-69	S.	Raining.	
TUESDAY,	7 A.M.	70	29.80	69.5-70	W.	Raining.	Clear but clouding. Clear. Raining.
	12 M.	81	29.80	79.5-81	S.	Clear but clouding.	
	3 P.M.	85	29.76	79 -85	S.W.	Clear.	
	11 P.M.	67	29.84	66.5-67	N.E.	Raining.	
WEDNESDAY,	7 A.M.	62	29.83	62 -62	N.E.	Cloudy and threat'g.	Raining in showers. Raining hard. Cloudy.
	12 M.	73	29.79	71 -73	N.E.	Raining in showers.	
	3 P.M.	72	29.75	72 -72	E.	Raining hard.	
	11 P.M.	66	29.75	66 -66	N.E.	Cloudy.	
THURSDAY,	7 A.M.	63.5	29.80	61 5-63.5	N.	Cloudy.	Clear. Clear. Clear.
	12 M.	74	29.82	66 -74	N.E.	Clear.	
	8 P.M.	63	29.82	58 -63	N.W.	Clear.	
	11 P.M.	Not observ	ed.				
FRIDAY,	7 A.M.	56	29.85	53 -56.5	N.W.	Clear, strong wind.	Clear, strong wind. Clear, strong wind. Clear and cool.
	12 M.	68.5	29.87	59 -68.	W.	Clear, strong wind.	
	3 P.M.	Not observ	ed.				
	11 P.M.	58	29.95	55 -58	N.W.	Clear and cool.	
SATURDAY,	7 A.M.	58	30.00	56 -58	N.	Clear.	

The health of the men was generally good. Very many colds and slight diarrhœa resulted from the two wet days at the beginning of the week, but improved as soon as the weather cleared.

With the exception of five cases of dysentery, six of intermittent and malarial fevers, and sixteen of diarrhœa and cholera-morbus, the sickness was all of a local character. Of the above miasmatic diseases, four cases of dysentery were returned to duty, and the other one was able to be carried home. All of the malarial fevers were returned to duty except one sent home on sick leave. All of the diarrhœal diseases were cured, and men returned to duty.

The greatest number reported sick was 29 on Wednesday, while the smallest was 1 on Saturday, the average for the five days being 16 2.

The duties of the medical officers were faithfully and ably performed, and reports of the tour of duty were promptly forwarded after the camp. In their reports, Major Howe of the First Regiment and Major Bissell of the Second Regiment condemn the overcrowding of the men, and suggest wall tents or barracks to remedy the evil. Major Howe also urges again the building of a brigade hospital and dispensary.

Major Porter of the Fourth Regiment deserved particular credit for obtaining a detail of four men as stretcher-bearers, and drilled them daily in their duties. Lieutenant Donaldson of the Fifth Battalion urges the importance of issuing a medicine chest to Battery A, to be used for sickness amongst the horses. Lieutenant Donaldson has had charge of this organization for the past few encampments, and has found occasion for such a chest each year.

None of the surgeons [with the exception of Major Porter during camp week] have been able to carry out the instructions of May 2, 1887, relating to the drilling of a hospital corps, on account of failure to get either the detail of men, or the stretchers.

I regret to say that notwithstanding the effort that has been made to establish a working hospital corps, it has as yet received no encouragement, and we are falling behind our sister States in the completeness and efficiency of our department. A surgeon without instruments would be of little value to the injured, and so our department, as it exists, would be very materially crippled in time of action, without the trained assistants which comprise the hospital corps. If, then, this department is of value to the National Guard let us have the opportunity to so organize that it may be a credit to the State, and in time of need an organization that shall be prepared to act. The following quotation is from General Orders No. 56, Headquarters of the Army, Adjutant-General Office, August 11, 1887: "The hospital corps consists of hospital stewards, acting hospital stewards and privates. All hospital services . . . shall be performed by its members, who

shall be regularly enlisted for, and permanently attached to, the medical department."

I would respectfully urge upon you the importance of establishing at once this hospital corps, as such, the members thereof to be exempt from other military duties. This will have a particular advantage of enlisting good men with a special taste for such work, and I would suggest that such corps consist of a hospital steward, an acting hospital steward, and four privates for each regimental or battalion organization, to be under the direct control, and receive regular instruction from, their senior medical officer.

That at once, or as soon as such corps can be enlisted, stretchers be issued as regimental property for the purpose of such instruction, and further to promote the interest of the men, and to distinguish them from other privates, that they be uniformed according to United States Regulations in orders before referred to.

There was no time during the week that one or more men were not sick in hospital, which, with those sent home for want of proper accommodation, shows us again the need of a suitable brigade hospital building, to accommodate from ten to twelve beds, and in one part of which should be a brigade dispensary. Such a building is needed each year for the care of the more serious cases of sickness, and it would beside give very valuable service as a school for instruction to the medical staff. The brigade dispensary would be a matter of convenience, and of considerable saving in expense to the State as a means of dispensing medicines, as compared with the present more extravagant system.

In conclusion, let me express the sentiment of the entire medical staff by saying, that we are all ready and anxious to do our utmost to promote the interest of this department, and make it all of which it is capable.

I am, very respectfully, yours,

C. PURDY LINDSLEY,

Lieutenant-Colonel and Medical Director, C. N. G.

[6.]

REPORTS OF BRIGADIER-GENERAL CHARLES P. GRAHAM, COMMANDING
BRIGADE C. N. G.BRIGADE HEADQUARTERS, C. N. G., }
MIDDLETOWN, CONN., Dec. 1, 1886. }*Brigadier-General* STEPHEN R. SMITH,
Adjutant-General, State of Conn.

GENERAL :

In compliance with the Militia Law and orders of the Commander-in-Chief, I have the honor to submit the following report :

The annual May parades were held by all the companies of the brigade, the machine-gun platoons, and Battery A, in compliance with orders from your office. They were generally well conducted, and resulted in benefit to the commands. Detailed reports from the commanding officers have been duly transmitted.

The first regiment paraded in Hartford on May 5th by permission of the Commander-in-Chief, in addition to the regular company parades. The regiment made an excellent appearance, and did a good day's work. The review by the Commander-in-Chief was finely executed.

The practice of companies devoting a half-day to rifle practice, and the balance to skirmish drill and instruction in sentinel duty, as has been established, is excellent, and should be continued. Many companies are still deficient in knowledge of skirmish tactics.

In pursuance of General Orders No. 11, C. S., A. G. O., the entire brigade was assembled at the State Camp Ground, Niantic, August 23d, for six days' camp duty. The camp was named Camp Smith, in honor of yourself, who is held in such high esteem by the entire brigade.

The following daily routine was observed :

Reveille, 6 A. M.

Surgeon's Call, 6.30 A. M.

Breakfast, 6.45 A. M.

Police Call, 7 A. M.

Company Drill, 7.30 to 8.15 A. M.

Guard-Mounting, 9 A. M.
Battalion Drill, 10 to 11.30 A. M.
Orderly Hour, 12 M.
Dinner, 12.30 P. M.
Battalion Drill, 2.30 to 3.30 P. M.
Police Call, 4 P. M.
Brigade Dress Parade, 5 P. M.
Retreat, 6.20 P. M.
Supper, 6.30 P. M.
Tattoo, 10 P. M.
Taps, 10.30 P. M.

The troops arrived in camp very promptly, but little delay occurring in transportation. Guard-mounts were held promptly by all organizations, the First and Fourth Regiments excelling, both being only nine minutes in forming after dismissal. I think this has not been excelled any year since the encampments were established; the Fifth Battalion was only one-half minute behind the First and Fourth Regiments. This promptness throughout deserves the highest commendation, and speaks volumes for the commanding officers.

The guard duty during the week was fairly performed, and compared favorably with former years, yet the instruction of many of the men is not what it should be, and is still the weak point in the brigade. The Fifth Battalion did very creditable work, however, as a whole, and deserves special mention. The causes of this lack of instruction in this important duty are, there is not time enough devoted to it during the drill season, and the practice of enlisting new men just before the encampment. Many of the older men in the regiments are well instructed, but there are so many in some of the companies that are not that it impairs the efficiency of the whole.

The routine was well observed throughout the week, all officers and men cheerfully obeying orders, and working hard to advance the standard of the entire brigade, making the week's encampment profitable to all. The battalion drills were well conducted, and proved very beneficial to officers and men. The company drills, in many cases, might have been very much improved upon.

The policing of the camp was excellent. Its clean appearance throughout the week was a subject of favorable comment by military visitors. There was very little sickness during the week, which was undoubtedly due to the excellent sanitary condition of the camp. The

reports of the Surgeon-General and Medical Director will furnish all information on this subject.

The mortar battery, erected by the United States Government on the east end of the ground, was used during the week for drill purposes, under the direction of 1st Lieutenant S. R. Jones, Fourth Artillery, U. S. A., companies F, First Regiment, and D, Second Regiment, being detailed for instruction. Lieutenant Jones is an expert in the use of these mortars, and his instruction to the companies was very interesting and of practical benefit. The sea-coast battery, as now constructed, will prove a great addition to the facilities for instruction in our State encampments.

The forenoon of Thursday, the 26th, was used in field manœuvres in place of the morning drills, the object being to give the officers and men practice and instruction in field work. In order to make this practice more instructive, the State should provide maps of the camp-ground and vicinity, so that officers could familiarize themselves with the ground, which would enable them to execute their orders with a better understanding and more effectively.

In the field manœuvres of France and Germany, all officers are furnished with maps of the ground that they are to work upon, and are carefully instructed in reading maps so that they can place their commands quickly in any position required. The plan and details of the field exercises will be found in the report of Major Burdett, Engineer and Signal Officer. The movements were well carried out; no accident of a serious character occurred to mar the success of the manœuvres.

I believe manœuvres of this kind can be made of great benefit to the troops, by giving the officers carefully prepared plans of the operations long before the encampment, that they may have time to study them thoroughly, the plans to be made on modern tactical ideas. By becoming familiar with such plans, they would be able to comprehend at a glance almost any plan that might be suddenly prepared in an emergency.

The troops were reviewed by His Excellency, Governor Harrison, on Friday the 27th. The ceremony was very satisfactorily performed, all of the commands showing great efficiency and soldierly bearing. Each command was given a few moments for drill following the review, in which the improvement made during the week was amply demonstrated.

The drill of the Battery was very commendable, and showed that

its efficiency is still maintained under the new commander. The new guns that have been furnished the past year have long been needed. The dress parades, both Brigade and Regimental, following the drills, were almost beyond criticism. The First and Second Companies Governor's Foot Guard, Major Kinney commanding, were present in camp during the day, as escort to the Governor. They took part in the review, and made a very fine appearance.

The presence of First Lieutenant C. A. L. Totten, of the Fourth Artillery, U. S. A., during the week, detailed by the War Department, at the request of the Commander-in-Chief, to inspect the camp, was undoubtedly beneficial to the brigade. Every facility was extended to him to witness the drills, ceremonies, inspections, etc. I invited him also to instruct the guard details, which he cheerfully did, and with very beneficial results both to officers and men. The defects which he pointed out in his report I hope to see greatly improved during the present drill season. I believe the commanding officers of the brigade are determined to rectify these deficiencies as rapidly as possible.

I am still of the opinion that the State gets better results and better service from these brigade camps than could be derived from regimental camps. It brings the regiments together, excites a healthy rivalry between them, and greater improvement is made.

Every facility is given the commanding officers to perfect their organizations as much as a regimental camp could provide, while the field officers derive far greater opportunities. It also brings about more uniformity throughout the brigade in instruction and drill.

A large number of officers from other States visited the camp, including General Rhodes of Rhode Island, and members of his Staff, General Peach and Staff of Massachusetts, officers from the Fourth U. S. Artillery at Fort Trumbull, General Hawley, and many distinguished persons from our own State, many of whom expressed themselves highly pleased with the appearance of the camp and the troops.

Quartermaster-General Goodrich, and his efficient assistant Lieutenant-Colonel Blakeslee, deserve great credit for the fine condition of the camp when turned over to me on the morning of the 23d. Everything was done that could be for the comfort of the troops. Transportation to and from camp was as near perfect as possible to make it with the facilities at hand.

I desire to express my high appreciation of the uniform courtesy shown me by the officers of the brigade. Their earnest and active

co-öperation in all that tends to improve the Guard cannot but result in improvement throughout the force.

The wise and careful administration of the Commander-in-Chief, together with the devoted interest that you have exercised toward the Guard during your term of office, has been of incalculable benefit, and has won for you both the highest esteem from every member of the Connecticut National Guard.

I take this opportunity to commend the Brigade Staff, and to express my earnest appreciation of their faithful services during the encampment, and at all times when called upon for duty.

I herewith transmit reports of all commanding officers regarding the field manœuvres, Thursday, August 26th, giving the operations in detail by each command; also the reports of Major Burdett, Brigade Engineer and Signal Officer, and Major Clapp, Brigade Inspector, marked "A" and "B" respectively.

Very respectfully,

Your obedient servant,

CHARLES P. GRAHAM,

Brigadier-General Commanding Brigade C. N. G.

**Reports of Subordinate Commanding Officers Regarding Field
Manœuvres, August 26, 1886.**

COLONEL WATSON, FOURTH REGIMENT.

HEADQUARTERS FOURTH REGIMENT, C. N. G.,

CAMP SMITH, NIAN TIC, August 28, 1886.

Brigadier-General CHARLES P. GRAHAM,

Commanding Connecticut National Guard.

GENERAL :

I have the honor to herewith submit my report of the part taken by the Fourth Regiment in the field manœuvres of Thursday, August 26, 1886, at Niantic.

By your orders a meeting of the Field Officers of the Brigade was held at your headquarters on the Wednesday evening preceding the Field Day. At this meeting you outlined the work to be done, and your Engineer and Signal Officer, Major Burdett, by the aid of the topo-

graphical maps he had carefully made, gave a more detailed account of the plan of operations. From this plan I learned that the Fourth Regiment was expected to conduct the attack upon both the east and west fronts of the camp, and to establish a line of skirmishers beyond the stream running through the north and west portions of the town, and covering an extent of front of a mile and a half or more; that I was to be allowed to use one company to make the attack on the east, and that the manner and mode of both attacks were to be left to my own judgment, using caution to prevent possible injury to men or property. The memorandum of time furnished by my signal officer, from the original of which I make this data, states, "Leave camp at 7.30 A. M., attack at southwest, 8.10 to 8.30 A. M., attack east side at 8.40 A. M., attack on northwest at 9 A. M.," and my verbal instructions were to make such additions to these times as any delay in starting might cause. The issuing of ammunition in the morning, the regular breakfasts, and the many details for hospital and other duties, caused a delay in starting of twenty minutes. We left camp at 7.50 A. M. with eight companies, but numerically with not over seven, as our old and new guard of thirty men each were the equivalent of a company. The command was marched out left in front, as our deployments were to be mostly from the right facing to the east, and being obliged to cover an extended territory the men would have more familiarity with their relative positions and consequently more confidence in themselves. Accompanying the Battalion was the Signal Corps, two pieces of artillery, and the gatling-gun. At 7.57 A. M. Company K and one piece of artillery left the line, under command of Captain Eugene Morehouse, to whom I had previously communicated my instructions as to time and method of attack. They proceeded to the east, crossing the river mainly by the bridge, a small detachment only going over by boat. Captain Morehouse deployed a portion of his force as skirmishers behind the walls and fences affording shelter, and covering a mile of the river front. The remainder of his command was then sent in squads to take quiet possession of boats located at five different points on the east bank of the river. They were specially ordered by me to put their arms carefully in the bottom of the boats; to remove their blouses and fatigue caps, and to substitute such apparel as they could easily carry, and to appear as much as possible like fishermen or civilians. This they did well, and I may say here that this company was selected, knowing that many, if not all, were familiar with

the use and handling of boats; their location at Stratford, on the Sound, accustoming them to this kind of work.

The field-piece under First Lieutenant Reynolds was sent on to the range of hills on the east bank of the river, with instructions to keep concealed as much as possible; to change location after every second or third shot, and to avoid locating near prominent objects. In all these respects the lieutenant in command exercised good judgment, and the work done by himself and platoon is deserving of commendation. My instructions to Captain Morehouse were, that when his five boats moved out into the river, and converged upon a central point opposite the water battery and camp, to open fire simultaneously from his boats, line of skirmishers, and field-piece, and if possible at or near the same time my attack with the main body began on the west of the camp; the intention being, by such a general attack, to find a weak point, and to so absorb the attention of the defending forces in all directions, that any concentrated defence of any particular point upon which the attacking party might have design would be less likely to occur.

The work done by Captain Morehouse and his command was of a most effective and soldierly character, and entirely in keeping with his orders.

As to what the results would have been in actual conflict I am not here reporting, but that they would have been disastrous to the enemy must be conceded.

At 8.13 A. M. I halted the main body of the troops on the south road running westerly through the village of Niantic, and on the summit of the hill in front of the Baptist Church. Here, under the shade of the trees, I took ten minutes' time to carefully explain to the entire command the general work they were expected to perform, viz. :

First, the deployment of a skirmish line covering and encircling, if possible, the entire west and northerly limits of the camp; the gradual and slow advance of that skirmish line upon the retreating pickets; to fire only when confronted by the enemy, and to cease firing when he shall have been approached within forty yards; and to use care that no injury of any kind was done to property of citizens or soldiers.

To Lieutenant-Colonel Skinner I assigned the three leading companies and the piece of artillery, with instructions to take the first road to the north passing the cemetery, and to occupy a position on the hill in the woods, extending one line of skirmishers after locating his

central portion to the right to meet those I should deploy, and another line along the hill through the woods to the left as far as he could properly cover. This Lieutenant-Colonel Skinner did in an excellent manner, and much sooner than I had supposed the nature of the ground would admit of. I continued the march of the four remaining companies and the gatling-gun over the main road toward the west until I reached a turn in the road and a lane by a farm-house that led up on to the wooded hills running northerly. The gatling-gun and ambulance were ordered around a bend in this road and instructed to take a position out of sight of the enemy, there to remain until they could again take up the march to the front.

The right company, Company F, Captain Betts, was left at this point with instructions to deploy his second platoon as skirmishers to the left to meet a line that would be deployed beyond, and to use his first platoon as a reserve for the right, and to follow up with the gatling-gun and ambulance over the road they had just come, our line of skirmishers when extended and advancing.

Major Crowe was left in command of this [right] wing, with instructions that when his reserve, just mentioned, had reached the cemetery road they were to take and follow it to the north edge of a corn-field just north of the Baptist Church, and there support such of our skirmish line as might have covered the ground [between the corn-field and pond north of it] overlooking the camp from the southwest, and to there locate the gatling-gun, both as a support to our line and a powerful menace to the camp.

The ground to the south of and including the corn-field was then to be considered as impassable ground by both the attacking and defending forces. Having thus posted and informed the right of my line as to their duty, I proceeded with the remainder of my force through the woods and underbrush over a winding and tortuous bridle-path until the summit and centre of the hills were reached. Halting the command I went ahead with some of my staff and soon met Lieutenant-Colonel Skinner, whom I found had occupied the central position assigned him, and had properly extended his skirmish lines until they met those I had deployed from the right. The piece of artillery also, under Captain A. S. Fowler, had been well located on the hill in the woods, and was ready for action. I then ordered Captain Cornell, of Company B, to extend his skirmish line to the left and north, and in company with Lieutenant-Colonel Skinner and my staff rode along our immediate front to the right, finding the line complete.

I compared time with First Lieutenant Kent, of Company F, who was commanding the right skirmishers, and ordered him to commence firing on the right at 9.10 A. M., that being the exact minute, not later than which, as I understood it, the engagement should begin.

My officers and myself then retraced our steps rapidly to the left, and continued the deployment of our own line of skirmishers so as to encircle the west and north of the camp lines as outlined by Major Burdett. But we found the enemy's pickets on the north posted in advance of our arrival, and far beyond the line marked on the map for them to occupy, one of them firing upon Lieutenant Colonel Skinner at very short range as he came to the edge of the woods on the north, and at least a quarter of a mile beyond the stream, on the west bank of which we had expected to find them.

The Signal Corps did excellent work in making a path for us through the underbrush and thicket, as for quite a portion of the way there were no signs of road, and no one, not even First Lieutenant Starr, the Signal Officer, had been over that part of the ground. It was entirely new to all of us.

The skirmish line was soon extended to cover our allotted territory, and precisely at 9.10 A. M. the firing on the right began. It was taken up more quickly on our left than was intended by Major Burdett, as he has since informed me, but my original memorandum says attack northwest 9 A. M. If we allow fifteen to twenty minutes' delay in starting it should have begun on the left at 9.20 A. M., at or about which time it did begin.

Besides, it must be remembered that the first shots on the left were fired by the outposts we met on our left; this, coupled with an active engagement in progress on our right, was sufficient to inaugurate a general fire along our entire line of skirmishers, and in a thoughtful consideration of it now, it seems to me impracticable as well as injudicious to have prevented it. The entire line was then gradually and slowly advanced. The bridge at Gorton's Mill we found was defended by a company from the Fifth Battalion, but our Company E, with the colors under Captain Sheridan, quickly assembled under cover of hedge and fence and poured into them a volley which caused them to beat a precipitate retreat. Crossing the stream by bridges, boats, logs, and in some instances by wading waist deep, as the reports to me from Captains Finn, Company I, and Cornell, Company B, show, our line pressed slowly forward, finding the pickets of the enemy constantly in their front but slowly retreating. We were making success-

ful progress, and, having posted portions of Companies D and E under the hill as reserves, we were about reaching its summit. Accompanied by Lieutenant-Colonel Skinner and my staff I rode up to take observations along the front, when we were met by Major Burdett, who, riding rapidly up, requested me to halt my lines, as the main body of the enemy had not yet arrived. Of course this was a novel request to make of an attacking force, but desiring to assist his practice, even though an enemy, I halted greatly to my disadvantage, although I then and there claimed possession of the hill, which was promptly accorded. I waited twenty minutes for the opposing forces to reach their positions, when their field-piece having opened an active fire on my skirmish line, I ordered an advance. Their field-piece, however, could do but little harm to our deployed line. Finding a company massed in the open field on the opposite side of a small stream, I ordered up our field-piece, and with a house as a protection to it from the range of the opposing piece, fired several shots which must have had a depressing effect upon their company formation. The attention of both field-pieces were then drawn to each other, and almost simultaneous firing began between them.

It was during this fire, and while the attention of the opposing piece was thus absorbed, that Company C, Captain Daniel commanding, had closed in upon the extreme right of the enemy; First Lieutenant Cochran, of Company C, had ordered an enfilading fire upon the enemy's platoon of artillery, and having effectually silenced it, closed in by the flank and captured it, at the same moment that Lieutenant King, with a detachment from Company B, had closed in for its capture from the front.

Here again it was found impossible to prevent men from crossing an imaginary boundary line, and a musket in the hands of one of our opponents, being deliberately fired within fifteen feet of the face of one of our men was possibly as strong an impulse as could have been suggested—fortunately the presence of mind of our man saved him from serious injury. We had but one slight casualty during the entire engagement, Private John W. Taylor, of Company G, being slightly injured in the left thigh by a small piece of shell.

This capture at 10.04 A. M. concluded the engagement, and by orders received through your Staff Officers we soon thereafter took up our line of march for camp, which was reached at 10.50 A. M.

The reports of Captain Betts and Major Crowe show that when they arrived at the corn-field mentioned as the boundary line of impassable

ground, they found the enemy was outside of this line and attempting to cover our flank. Major Crowe immediately ordered a deployment to prevent this, and hence a portion of my command, on their return, marched further over the main road, which they would not have done had not the enemy forced it.

Captain Frost, commanding Company D, a part of my reserve, guided by Quartermaster Hubbell, surprised a squad of the Fifth Battalion under charge of Captain Stratton, one of your aides, and after suddenly firing a volley into them, Captain Frost demanded Captain Stratton's surrender, but the latter turned and rode away.

We took several prisoners who were immediately paroled, and in several instances invited to join our forces and enjoy any benefits we might experience.

It was wise to have left the bayonets in camp, for "It has often been said that the real effectiveness of the bayonet lies in its moral power, as they have seldom been crossed by large bodies of troops, perhaps seven or eight times in the history of modern wars."

Very respectfully,

THOMAS L. WATSON,

Colonel Commanding Fourth Regiment, C. N. G.

COLONEL CONE, FIRST REGIMENT.

HEADQUARTERS FIRST REGIMENT, C. N. G.,
CAMP SMITH, NIAN TIC, August 28, 1886.

GENERAL :

I have the honor to report that on the morning of Thursday, August 26th, while the ceremony of guard mount was in progress, and the guard was passing in review, I received notice that our picket line to the southwest of the camp had been attacked by the enemy. As soon as the band had passed the Officer of the Day I at once ordered the long-roll to be sounded. In exactly one minute and forty-five seconds from the first tap of the drum, my command was formed on the color line ready for duty, and a staff officer was on his way to inform you that I awaited your orders.

In accordance with your verbal instructions, Company F was detached to support the Water Battery, and the remainder of my command was rapidly moved to the west side of the camp, to pro-

fect that flank from attack. Company D was at once sent forward to strengthen the picket line, and was soon followed by Companies B and G, these companies being directed to report to Major Burdett of your staff.

Soon after 10 o'clock a body of troops was observed skulking in a suspicious manner behind a stone wall, near the old road which skirts the base of the mountain to the northwest of the camp. This position was one which, if held by the enemy, would command the camp and compel its evacuation. I at once ordered Second Lieut. Chapman of Company H to move forward with a small party of scouts and ascertain whether these troops were friends or enemies. Lieut. Chapman and his party being fired upon, I caused the balance of my command to be rapidly deployed, and ordered them to move forward to the attack in double time, covering themselves as well as possible. Their fire was reserved until within about one hundred yards, when a well-aimed volley was delivered. They then charged on the enemy, who fled from the road and scattered in the adjacent wood. My command again moved forward and drove the enemy from the wood, and soon secured a position upon the summit of the mountain, which I directed them to hold until further orders. This position commanded both roads, and if held and fortified would, with a small force, effectually protect the camp from attack from that quarter.

The enemy having retired and no further danger being apprehended from that direction, I soon assembled my command and returned to our camp, arriving shortly before 12 o'clock with but few slight casualties to report.

I have the honor to be, very respectfully,

Your obedient servant,

WILLIAM E. CONE,

Colonel.

Brig.-General CHARLES P. GRAHAM,
Commanding Connecticut National Guard.

COLONEL LEAVENWORTH, SECOND REGIMENT.

HEADQUARTERS SECOND REGIMENT, C. N. G.,
WALLINGFORD, September 4, 1886.*Brig.-General* CHARLES P. GRAHAM,
Commanding C. N. G.

GENERAL :

I have the honor to report that agreeably to your verbal orders, delivered to me August 26, about 11 o'clock A. M., on the parade ground at Camp Smith, I proceeded with Companies A, B, E, F, of my regiment, to assist in repelling the attack upon Camp Smith, which had then been made by the enemy, from the west. After proceeding some half mile, most of the distance in double time, three companies were deployed to the right and left from the road, which led to the scene of operations, one company remaining in the rear as a reserve. The three companies mentioned, with two from the First Regiment and the outpost already on the ground, then occupied all the line between the ice-pond on my left and Oswegatchie Hill, on my right.

This disposition being made, a general advance was ordered to reach a stone wall, which was done in good style, and of course the wall was held and afforded a protection that with the greater number of men at my command, viz.: Ten companies, a gatling-gun, and one gun from the battery, than appeared to oppose them, our position was practically impregnable. The company held as reserve was finally ordered to the front and took the place of two others which were held in rear and right to prevent the enemy turning our flank, as there appeared to be a ravine between Oswegatchie Hill and the hill further to the right, and this pass was therefore completely commanded by the two companies before mentioned. These positions were held, and I think without an error, until the command was given to cease firing, when I returned to camp with my command, without an accident to mar the instructive occasion.

Yours truly,

WALTER J. LEAVENWORTH,
Colonel Second Regiment, C. N. G.

COLONEL HAVEN, THIRD REGIMENT.

HEADQUARTERS THIRD REGIMENT, C. N. G.,

CAMP SMITH, NIAN TIC, CONN., August 26, 1886.

Brigadier-General CHARLES P. GRAHAM,*Commanding Brigade C. N. G.*

GENERAL:

I have the honor to report the part taken by this command in the attempt to capture Camp Smith to-day, as follows:

Before guard-mount was finished the long-roll sounded, and our regiment immediately formed line of battle on the parade ground. Receiving your orders to guard the northern approach to the Camp, we moved up in double time and deployed three companies as skirmishers, under command of Lieutenant-Colonel Twomey, the line extending to and around the point of land north of the Spiritualists' Camp. On deploying we discovered and captured a boat containing two of the enemy, and brought them into camp.

The remaining companies deployed to the left as skirmishers, the extreme left covering the point of land in rear of the Quartermaster-General's store-house. Shortly after the line was completed a detachment of the enemy appeared on the opposite shore of the bay, but soon retreated under the brisk fire of our men. We held the position for about an hour, when we received the orders to return to camp.

I have the honor to be, very respectfully, your obedient servant,

GEORGE HAVEN,

Colonel Commanding.

MAJOR WELCH, FIFTH BATTALION.

HEADQUARTERS FIFTH BATTALION, C. N. G.,

BRIDGEPORT, August 30, 1886.

Brigadier-General CHARLES P. GRAHAM,*Commanding Brigade, C. N. G.*

GENERAL:

I have the honor to submit the following report of the operations of this Battalion in the defense of Camp Smith, Niantic, Conn., August 26, 1886.

In accordance with instructions received at Brigade Headquarters on the evening of August 25th, I reported this command to Major John B. Doherty, Field Officer of the day, at Brigade Headquarters, at

7.30 A.M., August 26th. By and under the direction of Major Charles L. Burdett, I marched to the position assigned me in the operations of the day.

Company A, Fifth Battalion, commanded by Second Lieut. William H. Jackson, was assigned and took position on the right of my line on high ground, commanding a fine view of everything along its entire front. His part of the line was not attacked during the operations of the day. Having established a reserve under Captain L. G. Seymour, Company B, the remaining force was divided into two detachments, the first of which, under command of Captain C. H. Walker, Company C, was placed in position on the summit of a hill, about three hundred yards from the reserve force, with instructions to carefully watch the approaches toward the camp, and to energetically dispute the advance of the enemy should he appear on his front. Captain Walker's right extended down the slope of the hill, and commanded the approaches from the woods beyond.

The second detachment, under command of First Lieut. Samuel J. Benedict, Company C, stood with its right resting about thirty yards from the left of Captain Walker's line, and separated from it by a ravine of considerable depth, and—for troops in any considerable number—almost impassable, the left extending in a slight circle to connect with a line to be established on its left.

Finding that the position of the first detachment, while being an excellent one for observation, and easily defended, was not, owing to the nature of the ground, a desirable one, it being impossible, in the event of a strong assault on either detachment, to bring the other to its support without a long detour to pass the aforementioned ravine, I ordered a change from its first position to one slightly retired, and contracted its front somewhat, in order that the whole force could be concentrated rapidly at either point, or, in the event of being compelled to retire, reach the reserve about the same time without the risk of being cut off and captured, as might easily have been done had the first position been there retained.

The appearance of the enemy's line at a point nearly at right angles with our front rendered it necessary to again change position, which was accomplished promptly and without confusion, and when the attack was made it was properly met. The firing was rapid and effective; the men showed steadiness and self-control. When the attacking force charged the right of our line, a part of the reserve was ordered up to strengthen it, and remained with the second detach-

ment until the action was over. At the commencement of the attack, the greater portion of my reserve, under command of First Lieutenant L. E. Seymour, Company B, was detached, and under direction of Captain W. H. Stratton, Aide-de-Camp to the Brigade Commander, was placed in position at a bridge to assist in repelling the attack made thereon, and performed the duty assigned them.

Captain Charles E. Tatten, Adjutant, and Lieutenant William H. Donaldson, Assistant Surgeon, of my Staff, performed prompt and efficient service during the entire operations.

Respectfully submitted,

Your obedient servant,

FRANK M. WELCH,

Major Commanding Fifth Battalion, C. N. G.

CAPTAIN FOWLER, BATTERY A.

HEADQUARTERS BATTERY A, C. N. G.,

GUILFORD, CONN., Sept. 6, 1886.

Brigadier-General CHARLES P. GRAHAM :

Commanding Brigade C. N. G.

DEAR SIR :

Being unfamiliar with the country in which the engagement of August 26th took place, and not having seen any map of the same by which I could become familiar with the names of the different localities, I will simply describe the course we took to the best of my ability. We left Camp Smith soon after 7.30 A. M., under command of Colonel Watson. Passing through the village of Niantic and taking the main road west about a mile, at which point a road branched to the north, the force was divided, the main body under Colonel Watson I think continued west. The battery under my command took this road to the north about three-quarters of a mile, at which place we joined a division commanded by Lieut.-Col. Skinner, under whose command I was also placed. We then left the road, turning in to the westward, crossing a creek, thence up a steep hill, entering the woods at our right; here the line of skirmishers was thrown out in either direction; the battery was located about a quarter of a mile in the woods, entirely under cover, but at the same time on a high bluff commanding for quite a distance the road leading north [of which I have spoken before]. Here Lieut.-Col. Skinner expected me to operate

if opportunity presented itself. Before that time came Colonel Watson rode along the line and told me I need not fire unless I received further orders; there probably would be no occasion for doing so. Soon firing began on my right and on my left, a splendid opportunity for the battery to operate presented itself, but as my orders were not to fire I obeyed, knowing it was right to obey my superior officers, yet wrong for the battery to remain silent at that time, as Colonel Watson afterward said himself. Soon, however, I received orders to forward the battery double-quick, which was done. The outposts had been driven back, so we returned to the road the same way in which we went, continuing on this road to the north, for quite a distance in double-quick time, taking the first road to our right and towards camp. Here we had to ascend quite a steep hill, and at its summit we came in full sight of the enemy; we immediately took our position nearly in front of a school-house and commenced firing rapidly. Soon the enemy fell back, and I again received orders to forward the battery double-quick, which order was again quickly obeyed. We moved but a very short distance when we observed a battery [under command, I think, of Lieut. Barker] at our left and front. We at once opened on it and some rapid firing was done on both sides. With my battery in front and the infantry in his rear, Lieut. Barker was captured. After a few more shots at a company of men directly before us everything was quiet. We waited in that vicinity a short time and then all returned to Camp Smith, arriving there I think about 10.30 A. M.

Very truly yours,

ARTHUR S. FOWLER,

Captain Battery A.

"A."

HARTFORD, CONN., November 1, 1886.

Brigadier-General C. P. GRAHAM,

Commanding Connecticut National Guard.

GENERAL:

I have the honor to submit herewith a report of the work and operations coming under my direction as Engineer and Signal Officer, at the annual encampment of the C. N. G., at Camp Smith, Niantic, in August, 1886.

TELEPHONE SERVICE.

The field line for telephone service was erected, and the several sets [eleven in all] of telephones, magneto bells, transmitters, and batteries were unpacked, mounted, and tested by me before the day on which the troops arrived in camp. The instruments were placed, respectively, in the tent of the Assistant Adjutant-General of the Brigade, in the Adjutant's office of each organization, at the stables, and at the railroad depot at Niantic. The connections were all made and the lines were in working order before 8 A. M. Monday, August 23d. The work was all done under my immediate supervision, and in the greater part by a small detail from the Signal Corps of the First Regiment, under First Lieutenant Penrose, to whose skill and energy the rapid progress and accuracy of the work is in part due. A special line was erected connecting the Quartermaster's Department store-house with the office of the Assistant Quartermaster-General, near brigade headquarters, and also with the Governor's Staff stables; this for the special use of the Quartermaster-General's department.

The following daily routine having been approved by you, was published to the Corps, and by its observance the work of instruction in visual telegraphy, in field engineering, and in the maintenance of the telephone line was conducted with a marked advance as compared with the work at prior encampments. The very recent change by orders from the Adjutant-General's department in the code of signalling, necessitated the learning of the new code, but by the end of the week there were several men in each detail competent to read and send at sight, and at any time during the week I found that intelligible communication between the stations established by the separate details, was possible.

A study of this routine, which was closely followed, will show that the Signal Corps were not given any time to waste; it was all used to good advantage.

CAMP SMITH, C. N. G. — 1886.

DAILY ROUTINE FOR SIGNAL CORPS.

[*Special.*]

Inspection of telephone line and instruments,	-	-	6.20 A. M. and 10 P. M.
Signal drill; theoretical instruction,	-	-	7.30 to 8.30 A. M.
The Signal Officers of the several organizations will report			
to the Chief Signal Officer at Headquarters of Brigade			
in fatigue uniform, with full details, at	-	-	9.30 A. M.

Signal drill; field instructions; flagging and telegraph work,	9.45 to 11.30 A. M.
Drill and instruction in Signalling and Engineering,	2.30 to 3.30 P. M.
Night Signalling,	9 to 10 P. M.

During the week, from August 23d to 28th, a guard of one man will be maintained at each of the following telephone stations at the times noted :

NIANTIC R. R. Station,	-	7.20 to 9.20; 11.15 to 1.30; and 5.30 to 7.30.
Brigade Headquarters,	-	- 9 to 11.30; 4 to 6.
Field and Staff stable,	-	- 9 to 11.30; 2 to 3; 4.30 to 5.30.

The care of the telephone line and instruments, and the duty of furnishing the guards as above for same, are assigned as follows :

On Monday, August 23 —	to Lieutenant Jackson, 2d Regiment.
“ Tuesday, “ 24 — “	“ Starr, 4th “
“ Wednesday, “ 25 — “	“ Allen, 3d “
“ Thursday, “ 26 — “	“ Penrose, 1st “
“ Friday, “ 27 — “	“ Jackson, 2d “
“ Saturday, “ 28 — “	“ Allen, 3d “

By order of

MAJOR CHARLES L. BURDETT,

Engineer and Signal Officer, C. N. G.

ENGINEERING.

Under the direction of the Quartermaster-General and yourself, the camp was laid out by me, the brigade being encamped along the same line running east and west across the camp-ground as in previous years, and in the following order: Fourth Regiment, First Regiment, Second Regiment, Third Regiment, Fifth Battalion and Artillery, the latter being for the first time placed on the left and on the color line instead of about one hundred yards in front of the line and facing to the west. This was rendered possible by using the new piece of ground on the east of the camp, lately acquired by the State by purchase, as this was occupied by the battery, and the new arrangement made a marked improvement in the appearance of the parade and drill ground and in convenience in formations.

As a matter of practice in about the most important feature of camp or field work for a military force, and for the first time in the history of the National Guard of Connecticut, instruction was given to the men in the building of rifle and gun-pits or epaulements.

The Signal Corps of the several regiments and the Battalion is made up of a detail of two men from each company in the organization, making a total of about seventy-two men in the brigade. It is

suggested that this force would, in case of actual warfare, form the nucleus of the Engineering force as well as the Signal Corps of the Connecticut National Guard.

On Wednesday, the 25th, a detail was made from the corps, tools were provided by the Quartermaster-General, and dividing the detail into four working parties, each proceeded to dig a trench and throw up an embankment, one near the northwest, another near the southwest, another near the northeast, and another near the southeast corner of the camp-ground. To the credit of the men, to most of whom the handling of a pick or shovel was not only new but also distasteful, there was no grumbling nor shrinking, and the work was done thoroughly and well. The tour of duty to each member of the working party was ten minutes on and off, in alternation. Two of these gun-pits are so located as to form a thorough flank defence, when occupied by field-pieces or a gatling-gun, of the site of the sea-coast battery of two ten-inch guns, and four ten-inch mortars lately constructed and equipped by the United States Government, at the southeast corner of the camp-ground. The other two pits command the north and west approaches to the camp.

FIELD MANŒUVERS.

The field manœuvres this year were based upon the following

IDEA :

An attack on the coast of the State of Connecticut in the vicinity of New London being imminent, the First Brigade Connecticut National Guard, consisting of four regiments, one battalion of three companies of infantry, one platoon of artillery, and four machine-guns is encamped at Niantic and preparing for active duty in the field.

For the purpose of preventing the use of Niantic Bay by the transports of the enemy a sea-coast battery of two ten-inch guns and four mortars is being constructed.

The enemy decide to take the camp and occupy it as a base in their contemplated attack on New London.

EMBODIMENT.

To indicate the attacking force a regiment is sent out of camp with orders to attack it from the west and northwest and east sides.

1. The first attack is to be made not before 7.40 A. M., nor later than 8 A. M., on the southwest, within one-half a mile west and north

of the bridge on the main road from Niantic to line, and over the Manacock river.

2. This first attack will be followed by an attack on the east front by one field-piece, and an infantry force, in several boats, that start from the east shore of Niantic river, and converge toward the camp front. Another attack from the northwest follows the first at 9 A. M., is one hour between this and the first attack, and this is made at Gorton's mill, and along the road running westward therefrom.

3. The pickets will retire across the bridge [marked A on the map], under the first attack, and will hold it until the appearance of a large force in front, and will then fall back along the road to the north near the river, and across the fields opposite the grave-yard. They will retire slowly, and contest the ground.

4. The river front of the camp-ground will be occupied by a company at the mortar battery, two companies in support, one piece of artillery, and one machine-gun.

5. The first attack will be resisted by four companies sent at once to the front to reinforce the grand guard, on receipt at the camp of notice of the attack.

6. The third attack [that is from the northwest] will be resisted by one regiment sent to the northwest.

At a consultation at Brigade Headquarters on Wednesday evening, it was ordered by General Graham :

First. That no bayonets should be taken out of camp by any force participating in the field manœuvres.

Second. The men shall not approach within fifty yards of the opposing force in action.

Third. The ammunition is to be issued to the companies before the company drill in the morning, and must not be issued before that time.

To prevent annoyance to the people of the village [Niantic], all the territory south and southwest of the camp, along the main road to the west, was, for the purpose of manœuvres, declared impassable, and strict instructions were given that no troops should be sent across this territory after the beginning of the attack.

At this meeting the plan was carefully outlined and illustrated by the use of maps ; each regimental commander received instructions, and Captain Fowler was instructed to place two field pieces at Colonel Watson's disposal at 7.25 the next morning, the Fourth Regiment having been selected to form the attacking force.

Early in the week a reconnoissance of the ground over which the several movements were to be made, was made by General Graham and Staff, and Colonel Watson and part of his Staff, and at such time, a line beyond which the attacking force should not pass was pointed out to Colonel Watson. This line consisted of a brook, running south-west across the road, to the northwest of the camp-ground, and about three-fourths of a mile beyond the camp, and emptying into the ice pond, and south of the pond of a wooden tramway. This line is clearly indicated on the map by the letters B.

On the morning of Thursday, August 26th, at 7.50, a force under Colonel Watson, consisting of eight companies of infantry, two pieces of artillery, and one machine-gun, left the camp. When well out of camp one company of infantry and one piece of artillery were detailed to form the attacking force from the east side.

The main body moved to the westward, on the main road, and at 8.13 A.M. halted for about ten minutes. The small force crossed the mouth of Niantic river, and moved up the east bank of the river, where the infantry embarked in boats for the purpose of making the attack on the east side of the camp. Three companies of the Fourth Regiment were instructed to move to the north to a position that had been described to the several commanders as being about one-half mile on the road northwest of Gorton's mill.

The main force, under Colonel Watson, crossed the bridge A, over the Manacock river, and were disposed for the purpose of an attack. Shortly after the attacking force under Colonel Watson had left camp, the grand guard, under command of Major Clapp, assisted by Lieut.-Colonel Elliott and Captain Stratton of the Brigade Staff, moved out of camp, and were posted in proper position to form the guard with their reserve, small posts and pickets, the latter extending on the west bank of the Manacock river from below the bridge [A] to a point one fourth of a mile south of Gorton's mill.

It was intended that from this force pickets should be established to the west of Gorton's mill, and to the north, joining the Fifth Battalion which was posted along a line running east and west from Gorton's mill and extending around the base of Oswegatchie Hill, and extending to the cove.

The ground marked with cross hatching, in the village of Niantic, was the part that had been declared impassable for the purpose of the field manœuvres.

Making a suitable allowance for the twenty minutes delay in leaving

camp, the attack should have been made at about nine o'clock, and it was so made at the southwest.

The part of the grand guard, consisting of the Fifth Battalion, were posted under my direction, and when near Gorton's mill I met Captain Stratton, who informed me that the pickets on the west did not extend to within a quarter of a mile of Gorton's mill on the south. I at once took one platoon of the reserve company of the Fifth Battalion and deployed them as pickets to fill this gap. Just as this work was completed I heard the firing, and moving to the east through the thick woods and underbrush on the hill on the west side of the Manacock river, came out near the old mill marked C on the map, passing around the extreme left of the Fourth Regiment's line of skirmishers and crossed the brook. The outposts of the camp force on the extreme south had been driven in, and were retiring slowly across the road and tramway just south of the ice-pond, and this compelled the withdrawal of the outposts all along the westerly line, and they fell back to the north along the road and through the woods, contesting the way. It then appeared that the part of the Fourth Regiment which should have been on the road, at the point marked E, had, in fact, gone no further north than the point marked F. The result was that the pickets west of Gorton's mill were cut off from the main force, and were unable to return except by making a long detour to the north, and come through the lines of the outposts of the Fifth Battalion. Within about ten minutes after the first attack began I met Colonel Watson on the brow of the hill just east of Gorton's mill, and said to him that his men were crowding forward much too rapidly, and that the attack on the northwest had been made much too soon, and instructed him to hold his force where they then were until the force sent out from camp should come in sight. I then returned rapidly to camp and found that the right wing of the Fourth Regiment had not only passed beyond the tramway, but that a portion, one platoon, had passed around through the village street through the very territory that had been declared impassable for the purpose of the manœuvres.

On the arrival of the Second Regiment on the brow of the hill, just east of the brook, marking the dividing line between the forces, the firing was resumed, and the opposing force were manœuvered in a manner intended to strengthen the various points that seemed the weakest or of importance on account of their strength. The First Regiment formed the support for the fighting line of the defence, and by curious error succeeded in making an attack upon the rear of

the reserve of the outposts who were posted near the quarry road. The north of the camp-ground was defended by the Third Regiment, deployed under command of Colonel Haven, and they succeeded in capturing a number of the attacking force who were making an attempt to enter camp from that direction.

The attack by the force on the west side of the camp was very well conducted, the field-piece being managed particularly well. The positions occupied by it were changed at intervals, and so chosen as to make an accurate estimate of their range from camp very difficult. As soon as fire was opened on the east side, Company F, from the First Regiment, supported by Company D, of the Second Regiment, moved rapidly to the east bank, manned the ten-inch mortars that were in position in a temporary battery, and also deployed as skirmishers along the river front to resist the attack.

One field-piece and one machine-gun also took positions on the bank some twenty feet above the water, from which they fully commanded the full width of the river, and also the position from which the field-piece on the opposite side of the river was being served.

During the engagement a strong force occupied the west side of the camp-ground, supported by one field-piece and a machine-gun, stationed in the gun-pits which had been constructed. At about eleven o'clock, under orders from yourself, the forces ceased firing, were assembled and returned to camp.

In this connection it may be well to state that to the proper conduct of manœuvres of this kind, it is necessary that there should be first a clear comprehension of the plan, and next a strict adherence to, and compliance with, the conditions laid down, and also orders of superior officers.

Respectfully submitted,

CHARLES L. BURDETT,

Major and Engineer and Signal Officer, C. N. G.

“ B.”

HARTFORD, CONN., December 1, 1886.

Lieutenant Colonel JOSEPH T. ELLIOTT,

Assistant Adjutant-General, Brigade, C. N. G.

COLONEL:

Agreeable with instructions from Brigade Headquarters, C. N. G., I have the honor to submit herewith report of my inspections of books,

records and quarters of the Brigade, while encamped at Camp Smith, Niantic, Conn., August 23 to 28, 1886.

At inspections of quarters I was usually accompanied by First Lieutenant C. A. L. Totten, Fourth Artillery, U. S. A., who was present in Camp, by a detail from the War Department, to observe and report the condition, etc., of the Connecticut National Guard. His report has been extensively published by the press of this State, and is a portion of the history of that encampment.

In my ratings I have used these terms: 0, bad; 1, poor; 2, fair; 3, good; 4, excellent.

BRIGADE HEADQUARTERS.

Order Book,	4
Letter Book,	4
Brigade Roster,	4
Provost Guard Report Book,	3
Medical Record,	4
Files of General Orders and Circulars from Adjutant-General's Office,	4
Files of Special Orders from Adjutant-General's Office,	4
Copies of orders received from Regimental and Battalion Headquarters,	4

REGIMENTAL HEADQUARTERS.

	Fourth Regiment.	First Regiment	Second Regiment.	Third Regiment.	Fifth Battalion.
Order book,	4	4	4	4	0
Record book,	0	4	3	0	0
Letter book,	4	4	4	4	0
Regimental roster and roll of N.C.S. and band,	4	4	4	1	3
Property book,	4	4	0	4	0
Register and prescription book, . . . . .	.....	.....	.....	.....	.....
Files of orders and circulars from A.-G. O. and brigade headquarters,	4	4	4	4	4

I did not find a record book at headquarters Fourth Regiment, as none had been issued to that command or so reported to me. At headquarters of Fifth Battalion I did not find either record, order, or property book. At headquarters Third Regiment there was not any record book, but I found the records were kept in the order book. This should be rectified, and the records kept according to the Code.

FOURTH REGIMENT.

	COMPANIES.								
	F.	C.	D.	E.	I.	K.	G.	B.	M.-G.P.
Order book,	0	4	4	4	4	4	4	4	0
Record book,	0	4	4	4	4	4	4	4	0
Muster and descriptive book,	4	4	4	4	4	4	4	4	4
Property book,	4	4	0	4	0	4	4	4	4
Morning and drill report book,	4	4	4	4	4	4	4	4	4
Sick book,	4	4	4	4	4	4	4	4	4
First Sergeant's roll-book,	4	4	4	0	4	4	4	4	4
Files of orders and circulars from A.-G. O. and brigade headquarters,	4	4	4	4	4	4	4	4	4
Quarters,	3	3	2	2	2	3	4	3	2

The order and record books of Company F, and the property book of Companies D and I were not in camp, and therefore not inspected by me.

FIRST REGIMENT.

	COMPANIES.								
	D.	A.	K.	E.	H.	B.	F.	G.	M.-G.P.
Order book,	4	4	4	4	4	4	4	4	4
Record book,	4	4	4	4	4	4	4	4	4
Muster and descriptive book,	4	4	4	4	4	4	4	4	4
Property book,	4	4	4	4	4	4	4	4	4
Morning and drill report book,	4	4	4	4	4	4	4	4	4
Sick book,	4	4	4	4	4	4	4	4	4
First Sergeant's roll-book,	3	4	3	4	4	4	4	3	4
Files of orders and circulars from A.-G. O. and brigade headquarters,	4	4	4	4	4	4	4	4	4
Quarters,	2	2	4	2	3	3	4	3	2

The property book of Company F was not equaled in the brigade as to appearance and correctness.

Company A has in use a portable case in which its books and papers are kept, which for field use is worthy of imitation and adoption.

SECOND REGIMENT.

	COMPANIES.										M. G. P.
	I.	F.	E.	G.	D.	B.	H.	A.	C.	K.	
Order book,	4	4	4	4	4	4	4	4	4	4	4
Record book,	4	4	4	4	4	4	4	4	4	4	4
Muster and descriptive book,	4	4	4	4	4	4	4	4	4	4	4
Property book,	4	4	4	4	4	4	4	4	4	4	4
Morning and drill report book,	4	4	4	4	4	4	4	4	4	4	4
Sick book,	4	4	4	4	4	4	4	4	4	4	4
First Sergeant's roll-book,	4	4	4	4	4	4	4	4	4	0	4
Files of orders and circulars from A.-G. O. and brigade headquarters,	4	4	4	4	4	4	4	4	4	2	2
Quarters,	1	3	1	1	4	1	2	3	2	2	2

Company K did not present a First Sergeant's roll-book for inspection, stating that none had been issued to that company.

THIRD REGIMENT.

	COMPANIES.							
	I.	E.	C.	G.	B.	F.	D.	M. G. P.
Order book,	0	0	4	0	0	4	3	0
Record book,	0	0	4	4	0	4	4	3
Muster and descriptive book,	0	1	4	4	0	4	4	3
Property book,	0	0	4	4	0	4	4	3
Morning and drill report book,	0	4	4	4	0	4	4	4
Sick book,	0	4	4	4	0	4	4	4
First Sergeant's roll-book,	0	4	4	3	0	4	4	0
Files of orders and circulars from A.-G. O. and brigade headquarters,	0	0	4	4	0	4	4	4
Quarters,	2	1	1	2	3	3	2	2

Company I did not have any books in camp. Company E did not have the order, record, or property book nor adhesive files in camp. Company B had recently suffered by the burning of their armory, and a new set of books had been issued just previous to or at the encampment.

FIFTH BATTALION.

BATTERY A.

	COMPANIES.			
	B.	A.	C.	
Order book,	4	0	0	3
Record book,	4	0	0	0
Muster and descriptive book,	4	4	0	0
Property book,	4	3	0	4
Morning and drill report book,	4	4	0	0
Sick book,	4	4	0	0
First Sergeant's roll-book,	4	3	0	4
Files of orders and circulars from A. G. O. and brigade headquarters,	4	3	0	4
Quarters,	3	2	2	1

Company C, 5th Battalion, had no books or papers in camp. Battery A did not show the record, muster and descriptive, morning and drill report, or sick books, claiming they had not been issued.

While there was much to commend at Camp Smith, there were many doings and omissions that should be remedied. The failure of any commander to bring the books and records of his command to camp ought not to be overlooked. To allow enlisted men to spread the blankets issued to them upon the tent floors to walk upon is wrong. For officers or enlisted men to attempt to interfere with a guard on duty is folly, and should be, so far as possible, prevented. Guard duty at our encampments has been severely criticized, and much unjust criticism expressed. My observation leads me to believe that a detail from any company of the Brigade, posted on guard, with loaded rifles, and orders given this guard to do its duty, as guard duty ought to be done, there would be very much less said about inefficient guard duty. They would certainly command respect, and not be interfered with by irresponsible persons; and until there is a wholesome fear or respect for a sentry, based upon his ability to enforce his orders, there will be the same disrespect shown him, whether he is a veteran of seven years' service or a lately-joined recruit.

Quite a number of tents in the streets of Company D, Second Regiment, and Company F, Third Regiment, were badly marked, evidently with charcoal, and done at this encampment.

I believe that under-drains ought to be laid from each drive-well to a distant part of the field, to carry off the water that is thrown on

the ground near each well. The bed of pebble stone, now used, is the receptacle of most of the water used for bathing, etc., and must, necessarily, pass through the pebble beds and very soon be pumped up again for use. Many of the tent floors appear very much soiled and stained. If they could be used for fencing purposes, and new floors for the A tents be furnished, the blankets and ticks could be kept cleaner.

Very respectfully,

Your obedient servant,

JOHN B. CLAPP,

Major and Brigade Inspector, C. N. G.

BRIGADE HEADQUARTERS C. N. G., }
MIDDLETOWN, Nov. 30, 1887. }

Brigadier-General FREDERICK E. CAMP,

Adjutant-General, State of Connecticut.

GENERAL :

In compliance with the Militia Law and orders of the Commander-in-Chief, I have the honor to submit the following report :

In pursuance of orders from your office, the entire Brigade paraded one day, by company, during the month of May. The day's drill was devoted to rifle practice, skirmish drill, and instruction in guard duty. The drills were very beneficial to the commands, and the State received ample returns for the expense incurred. Detailed reports from the commanding officers have been transmitted.

An invitation was extended to the entire Brigade to participate in the ceremonies of the Dedication of the Soldiers' and Sailors' Monument, in New Haven, on June 17th. At the earnest request of the Commander-in-Chief, every command volunteered to parade on that day without pay. The appearance of the Brigade in their new uniform was exceedingly fine, and elicited high praise from Generals Sherman, Sheridan, Terry, U. S. A., and others. Transportation arrangements were satisfactory, considering the large amount of business the railroads had on hand that day. No accidents were reported.

In compliance with General Orders No. 17, from your office, dated July 18, 1887, the entire Brigade was assembled at the State Camp Ground, Niantic, on Monday, August 22d, for six days' camp duty. The camp was named Camp Lounsbury, in honor of the Governor and Commander-in-Chief. The following daily routine was observed :

Reveille, 6 A. M.
Surgeon's Call, 6.30 A. M.
Breakfast, 6.45 A. M.
Police Call, 7 A. M.
Company drill, 7.30 to 8.15 A. M.
Guard-Mounting, 9 A. M.
Battalion Drill, 10 to 11.30 A. M.
Orderly hour, 12 M.
Dinner, 12.30 P. M.
Battalion Drill, 2.15 to 3.30 P. M.
Police Call, 4 P. M.
Battalion Dress Parade, 4.30 P. M.
Brigade Dress Parade, 5.30 P. M.
Supper, 6.30 P. M.
Tattoo, 10 P. M.
Taps, 10.30 P. M.

Very little delay occurred in the arrival of the troops in camp. A severe rain-storm set in in the morning, lasting about three days, which made it very uncomfortable, and very much interfered with the routine duties of the camp during that time. Excellent discipline was maintained, however, through all the discomforts of wet quarters and wet clothing, and the troops richly deserved the complimentary orders from the Commander-in-Chief at the close of the encampment.

The guard duty this year was very much better performed than in any previous year, showing that more attention had been given to this duty during the drill season. The prime cause of this improvement, however, was due to the careful instructions of Lieutenants Totten and Dyer, U. S. A., who had been detailed at the request of the Commander-in-Chief, and assigned to this duty. They were deeply interested in the work, and very thorough in their instructions. I would recommend that this practice be continued, as I believe it will result in great improvement in this important duty.

The same trouble existed this year as in the past, *i. e.*, the practice of companies taking new men to camp who had not been instructed in the first duties of a soldier; men who did not even know the manual of arms. It is impossible to instruct such men in guard duty in the short time of our encampments. I would recommend that all enlistments be stopped at least two months before the encampment.

The battalion drills were well conducted, but the improvement

was not as great as it would have been had the weather permitted. More time was spent in skirmish drill, both by battalion and company, and very decided improvement made in this direction.

The camp was kept well policed considering the bad weather, and was all that could be desired in cleanliness. The Medical Director, assisted by the medical officers, kept a careful watch upon the mess quarters and kitchens, and by their efficient service the camp was kept in a healthy condition.

The reports of the Surgeon-General and Medical Director will furnish all information regarding the sickness during the week.

I would specially call your attention to the report of the Medical Director regarding quarters for the men ; also in regard to men for hospital service.

First Lieutenant W. R. Hamilton, Fifth Artillery, U. S. A., was detailed at the request of the Commander-in-Chief, and assigned to duty as instructor at the sea-coast battery. At his request one company was detailed for this instruction, Company I, Second Regiment, being the company assigned. Under his able instructions the company became quite well drilled in the work of handling heavy guns and mortars, and were complimented by him for their efficiency in the short time they had for the work. The facilities that this battery affords for instruction is an excellent addition to the camp-ground, and will enable the State troops to be quite well instructed in this important drill.

The brigade was reviewed by His Excellency the Governor and Commander-in Chief, on Friday, the 26th, at 2 P. M. The ceremony was well performed and elicited high praise from military gentlemen from other States who were present. The marching and soldierly bearing of the troops was excellent. Salutes were generally good. Immediately after the review each command was given fifteen minutes for drill. The First Regiment used the time in skirmish drill with blank ammunition, making a very creditable display. All of the organizations did exceedingly well and deserve favorable mention. Immediately after the drills an exhibition of shell firing was given by the sea-coast battery. The dress parades closing the day's duty were models of excellence, and show conclusively that in all ceremonies the brigade is very proficient.

The camp was visited by many distinguished people from this and other States, including many officers.

The fine appearance and almost perfect condition of the camp

when turned over to me on Monday reflects high credit upon Quartermaster-General Olmstead, and his able assistant, Lieutenant-Colonel H. C. Morgan. Transportation for the troops was very satisfactory, no accidents having occurred in moving the entire brigade to and from the camp.

Taken as a whole, the encampment was very beneficial to the troops. It would undoubtedly have been more so had the weather been more favorable in the early part of the week, but it demonstrates beyond question that the C. N. G. are ready at all times to perform their duty to the State under any and all circumstances.

The four regiments and the battalion are steadily improving under their able commanders, and I believe they are in better condition than they have ever been. I would respectfully call your attention to the report of the Brigade Inspector in regard to Battery A, and the condition of some parts of the camp ground, bed sacks, and A tents.

The Signal Corps, although small, is quite efficient, and of great value to the brigade.

The machine-gun platoons are well organized and in quite efficient condition.

The trumpet corps is in need of new instruments of uniform pattern. There is such a variety in use now that it is impossible for them to play together.

The care and wisdom that has been bestowed upon the Guard by former administrations, has been ably continued by the Commander-in-Chief and yourself, and the continued prosperity of the Connecticut National Guard assured.

I desire to extend my sincere thanks to the officers of the brigade for their uniform courtesy at all times, and to commend them for faithful service to the State and cheerful obedience to orders.

The brigade staff have been specially efficient in their duties the past year, and I most heartily commend them all.

I herewith transmit reports of Major Alexander Allen, Brigade Inspector, and Major C. L. Burdett, Brigade Engineer and Signal officer, marked "A" and "B" respectively.

Very respectfully,

Your obedient servant,

CHARLES P. GRAHAM,

Brigadier-General Commanding Brigade, C. N. G.

"A."

HARTFORD, CONN., November 15, 1887.

Lieutenant-Colonel JOSEPH T. ELLIOTT,*Assistant Adjutant-General of Brigade C. N. G. :*

COLONEL :

In compliance with orders from Brigade Headquarters, dated Camp Lounsbury, August 22d, ult., directing me to make an inspection of books and records, and company quarters, and a full inspection of Battery A, I have the honor to state that the inspections were made in camp, as directed, and have to report thereon as follows :

BOOKS AND RECORDS.

The general appearance of the books and records was good ; in some organizations it was evident that commanding officers had taken pains to have books kept correctly and neatly written up ; this was more particularly the case in the companies of the First Regiment, some of which are entitled to much credit for excellence ; two companies in this regiment are rated excellent in this particular. In the Second Regiment but one company is entitled to this creditable rating, although several companies might have received a better rating had they produced all books of record at camp, as required by orders, for inspection. The books of the companies in the Third Regiment were not as well kept as might be expected ; it was very evident that commanding officers were neglectful to the extent of not informing themselves as to the correct method of keeping books and records. The same criticism will apply to the Fourth Regiment, making it apparent that officers do not read carefully Regulations, and follow the methods therein laid down, and explicitly prescribed in Article XXI, Books and Papers (pp. 290-298). It is singular that, although especial pains were apparently taken by the compilers of the Regulations to state in explicit terms just how books of record shall be kept, rendering it practically impossible for any intelligent reader to misunderstand, that there should be so many organizations with defective books ; there is but one conclusion, that is, officers do not read the Regulations, otherwise better records would be the result. This was verified by some officers informing the Inspector that they did not know of the existence of directions how to keep their books, although the State had issued to each commissioned officer and sergeant a copy of the Regulations. In such cases, the Inspector deemed it his duty

to instruct the officer as to the proper method, and took pains to point out deficiencies. In most cases the instruction was appreciated, although some officers were disposed to dispute the decision of the Inspector, and to insist that their methods were right (although in violation of Regulations), because they had followed the precedent established by former commanding officers. As it appears to be hardly within the province of an Inspector in camp to take much valuable time from other duties for the purpose of instructing officers in the keeping of books of record, I would suggest that regimental commandants, either personally or by the detail of a competent field or staff officer, carefully inspect all company and headquarter books during the drill season, and give much-needed instruction to such commanding officers, first sergeants, and company clerks, as are deficient in the knowledge of their duties in this respect. This should result in great improvement. Many books were not taken to camp, for which there is no excuse. All letter books, and several other headquarter books, were left at home, and, in some cases, commanding officers stated they considered the letter books to be private property. In view of the fact that these books are issued by the State that opinion is too absurd for further comment. Perhaps the greatest ignorance was shown in the condition of property books, only twenty-five per cent. of which were correctly kept, and, in one or two cases, not an entry had been made, although the book had been in possession of the same commanding officer for over three years. The simple instructions for keeping First Sergeant's roll-book were not observed in too many cases, and various signs were used to indicate "presence" or "absence" instead of the simple "P." or "A." as prescribed. In one company of the brigade a system of geometrical lines was used, which required the assistance of the commanding officer to explain their significance to the Inspector. But fifteen of these books are rated excellent, not one of which is in the Third Regiment or Fifth Battalion. A neat case in which to keep all company books is used by Company A, First Regiment, and is recommended for adoption by all companies; it is an excellent feature.

Through inadvertence, the books of the Machine-Gun Platoons, attached to each Second and Third Regiments, were not inspected in camp. I subsequently wrote Second Lieutenants Sears and Chaney, respectively, to forward the books to me at my expense, promising prompt return, with which request they have not complied. This will account for the books of these organizations not being rated.

Some record books of rifle practice were produced for inspection, but as those books are not provided for in the Regulations, although issued by the state for many years, I have not accounted for them.

Appended hereto and made part of this report are tables showing the condition of books in detail, in which I have used the following ratings: excellent, 5; good, 4; fair, 3; poor, 2; bad, 1. Books not produced are marked 0.

COMPANY QUARTERS.

Generally speaking, quarters were in good condition, and would have presented a better appearance but for the prevalence of stormy weather during the first three days of the encampment. In order of merit by battalion organization, considering uniform neatness and system of arranging bedding, arms, and equipments, I would place the different organizations, as follows: Second Regiment, Fourth Regiment, Third Regiment, Fifth Battalion, First Regiment, Battery A.

Three companies of the Second Regiment are rated excellent (5), all others being good (4).

In the Fourth Regiment, all companies are rated good (4); the field officers of this regiment had evidently given personal attention to this matter, resulting in complete uniformity in the arrangement of bedding, equipments, baggage, etc. In this Regiment, quarters were ready for inspection at the time set, and accompanied by the Colonel and other officers, the Inspector was enabled to perform his duty immediately. This was not the case in some other organizations, where the Inspector was detained from fifteen to thirty minutes beyond the time set by agreement.

The quarters of the Third Regiment were in approximately good condition, but not as uniform in arrangement as in the Fourth Regiment.

The quarters of the three companies of the Fifth Battalion were in good condition.

Four organizations of the First Regiment had their quarters in excellent condition — really perfect — but the Inspector has to report that the only quarters in the Brigade in bad condition were found in one company of this regiment. For this not creditable fact no excuse can be given.

The quarters of the Battery of Light Artillery were not in good condition, and showed a disregard for results, or an ignorance of proper requirements in preparing for inspection.

The ratings of each company for quarters are included in the tables giving condition of books.

The Inspector recommends that instructions how to arrange quarters be formulated and published to the National Guard, as neither the Connecticut Regulations nor United States Army Regulations contain information on this subject, or prescribe any system of arranging quarters.

INSPECTION OF BATTERY A.

In the judgment of the Inspector this organization is not in as good condition as possible with the present material. The inspection was made in full uniform, mounted, on the battery park, and developed the following: The discipline of the men was poor; instruction fair; military appearance poor; arms fair, as far as judgment could be passed; equipments fair; uniforms in good condition, but ill-fitting; a somewhat general appearance of carelessness in the men. The harnesses and saddles needed brightening up and blacking, and the gun-carriages should be re-painted; they presented a somewhat dingy appearance. The saddle-blankets were of different sizes, not of uniform fold, and differed in color. The horses were generally inferior, most of them being unserviceable animals for actual service, and they showed a want of proper care and grooming. The intention of the Inspector to put the battery in action was not carried into effect, owing to lack of time and the parade ground being occupied for a dress parade. I was accompanied during this inspection by First Lieutenant W. R. Hamilton, Fifth United States Artillery, detailed as instructor in heavy artillery drill at the siege-gun and mortar battery.

I would suggest that new regulation saddle-pads be issued to the battery, and that steps be taken without delay to generally improve the condition of this organization, which labors under the disadvantage of being located so that many men in each Platoon live long distances from the Armory, and, therefore, have not opportunity for instruction except in camp and at the regular May parade.

CONCLUSION.

Although the camp-ground may be considered to be excellently well adapted for its purpose, improvements should be made more particularly in the grading of the grounds in the field and line officers' street, and in front of the mess house occupied by the First Regiment this year, where water accumulated and laid during the entire week.

Driving carriages, express teams, and heavy wagons, through any company or the field or line officers' streets should be absolutely prohibited, and all baggage should be delivered at the color line or in rear of all quarters. Many A tents were in a leaky condition, and some had to be vacated by the occupants during a rain-storm, being uninhabitable. The floors of many tents pitched to the rear, which allowed the rain to run over the floor when beaten in through the flaps or flies. Based upon an experience of many years, the Inspector would unhesitatingly condemn the A tents now used by enlisted men as uncomfortable and unhealthful, and would recommend that they be disposed of by the State, and the troops quartered in the field in wall tents, or some other more roomy canvas, as are the volunteer soldiers in the States of New York and Massachusetts.

The bed-sacks issued in camp are mostly old and unserviceable, and should be replaced by new ones, or else mattresses substituted therefor. This last would, perhaps, be economy to the State, resulting in a saving of the large amount annually expended for straw, which would soon equal the cost of a complete equipment of mattresses. Men used to home comforts would appreciate a mattress much more than a dirty, worn-out sack filled with straw, which litters the tent and company street.

An increasing evil of camp life, hard to control, is the propensity of enlisted men, especially recruits, to straggle out of camp after retreat, necessitating a strong provost-guard and much effort to return the men to camp. In addition to the absences without leave, my experience as Provost Marshal in camp convinces me that by far too many passes permitting men to pass out of camp are issued. There is not any necessity for men to be permitted outside of camp except in an occasional instance, and commanding officers should, therefore, exercise more care in issuing passes.

This would remedy the evil in a great degree, and then, if a necessity to keep the men in camp, I would recommend that a substantial high fence be built around the camp-ground. The State has a right to expect that men in camp shall pay strict attention to duty, and remain on the camp-ground during the entire week.

Very respectfully,

ALEX. ALLEN,

Major and Brigade Inspector, C. N. G.

TABLES SHOWING CONDITION OF BOOKS OF RECORD AND
QUARTERS.

BOOKS AT HEADQUARTERS.

	Order Book.	Brigade Roster.	Letter Book.	Property Book.	Medical Record.	Register and Pre- scription Book.	G. O. File.	S. O. File.	Provost-Guard Re- port Book.
Brigade Headquarters, . . .	5	5	0	5	5	5	5	5	5

	Order Book.	Record Book.	Mustering and Descrip- tive Book.	Property Book.	Regimental Roster.	Medical Record.	Register and Pre- scription Book.	Letter Book.	G. O. File.	S. O. File.	Morning Report Book.
Headquarters Battery A, . .	3	0	3	0	..	..	..	..	4	4	3
Headquarters 1st Regiment,	5	5	..	5	5	5	5	..	5	5	..
Headquarters 2d Regiment,	5	5	..	0	5	5	5	..	5	5	..
Headquarters 3d Regiment,	5	0	..	3	3	0	4	..	5	5	..
Headquarters 4th Regiment,	5	0	..	3	5	0	0	..	5	5	..
Headquarters 5th Battalion,	4	0	..	1	3	4	4	0	4	4	..

COMPANY AND PLATOON BOOKS.—CONTINUED.

THIRD REGIMENT.	FOURTH REGIMENT.																			
	Order Book.	Record Book.	Muster and Descriptive Book.	Property Book.	Morning Report Book.	Sick Book.	First Sergeant's Roll-Book.	G. O. File.	S. O. File.	Quarters.										
Company A, . .	1	4	3	1	3	3	3	4	4	4	Company B, . .	3	5	4	5	2	4	4	3	4
Company B, . .	0	3	4	4	4	3	4	4	4	4	Company C, . .	4	5	4	5	5	5	5	5	4
Company C, . .	3	3	4	5	4	4	4	4	4	4	Company D, . .	4	4	4	4	4	5	0	0	4
Company D, . .	4	4	4	2	5	4	3	4	4	4	Company E, . .	3	5	4	3	3	4	5	5	4
Company E, . .	3	4	4	0	4	4	4	1	1	4	Company F, . .	0	5	5	5	5	5	5	5	4
Company F, . .	4	4	4	4	5	4	4	4	4	4	Company G, . .	4	5	4	5	5	4	5	5	4
Company G, . .	3	4	4	1	5	5	4	5	5	4	Company I, . .	3	3	4	4	5	4	4	4	4
Company I, . .	0	3	3	0	4	1	4	4	4	4	Company K, . .	3	4	4	5	5	5	5	5	4
3d M.-G. Platoon,	..	..	..	..	..	..	..	..	..	4	4th M.-G. Platoon,	3	4	3	4	4	5	5	5	4

"B."

HARTFORD, CONN., NOV. 1, 1887.

*Brigadier-General CHARLES P. GRAHAM,**Commanding Connecticut National Guard.*

GENERAL:

I have the honor to submit herewith a report of the work and operations coming under my direction as Engineer and Signal Officer at the annual encampment of the Connecticut National Guard, at Camp Lounsbury, Niantic, in August, 1887.

TELEPHONE SERVICE.

It has been the custom in previous years to erect within the camp limits a field line of light poles, to connect the headquarters of the several commands with the more permanent line from the Quartermaster's Department to the railroad depot in Niantic, for the telephone service. This practice compelled the putting up and taking down of some three thousand feet of line each year, and as the camp seemed to be established on permanent lines it was deemed best to make the whole line permanent by the erection of more substantial poles, and leaving the wire on the poles, loops being provided at proper intervals for connecting the several sets of instruments in regimental and battalion headquarters with the main line. A special telephone line was erected for the use of the Quartermaster's Department, with means, under the control of the Assistant Quartermaster-General, for connecting this special line with the main camp line.

All of the preparatory work in the erection of the telephone line and the setting of the several sets of instruments was done by and under the direction of First Lieutenant Penrose, of the First Regiment Signal Detail, and the fact that there were no complaints during the week from faults on the line, and were no breakages, points to the thoroughness of the work done. The daily routine for the Signal Corps, approved by you and published to the corps during this encampment, was the same as in the previous year, except, of course, as to the assignment of work to the details of the several commands.

The sea-coast battery was in shape for use during this encampment, and details from the Guard were instructed in handling the guns and in target practice by First Lieutenant Hamilton, 5th Arty., U. S. A. The target was erected on the left bank of the Niantic River, on a line southeast of the battery and at a point about eight hundred yards dis-

tant therefrom. Within the line of fire two roads crossed each other, and on them there was considerable travel. To prevent any chance of accident the Signal Corps of the Third Regiment were detailed to guard this territory, about a half mile in width by a mile in depth, and also to signal the results of the target practice.

This detail was under the command of First Lieutenant Hubbard, Signal Officer of the Third Regiment, and the work was performed in the most thorough and satisfactory manner. The signal detail from the Fifth Battalion, under command of Signal Sergeant George Saulsbury, was stationed at the battery and performed all the work in their usual thorough and satisfactory manner.

ENGINEERING.

The plan for field manœuvres, prepared for this encampment, was not carried out, owing to the inclemency of the weather. By your instructions, I assisted Lieutenant Hamilton in several matters coming within the duties of an ordnance officer, and had details from the Signal Corps prepare, with what crude tools we could find at hand, a number of ten-inch shells of plaster of paris. These shells were used in target practice and as solid shot, and were also fired with bursting charges.

By preparing these shells in time, before encampment, they will afford a cheap and useful substitute for the expensive iron shells that are necessarily wasted in target practice.

The Signal Corps, as a whole, was shown to be in a commendable state as to proficiency, but it is hampered by the fact that, owing to the nature of the organization, the several signal officers have forced upon them undesirable and incompetent men, and can depend during the year for but a part of their full detail. In calling your attention to this matter it is hoped that some steps may be taken before the next encampment to place this corps on a satisfactory basis and to provide it with an equipment suitable to its needs.

Respectfully submitted,

CHARLES L. BURDETT,
Major and Engineer and Signal Officer C. N. G.

[7.]

REPORTS OF COMMANDING OFFICERS C. N. G. REGARDING MAY PARADES,
1887.

Report of Colonel Thomas L. Watson, Commanding Fourth Regiment.

HEADQUARTERS FOURTH REGIMENT, C. N. G.

BRIDGEPORT, June 3, 1887.

*Brigadier-General F. E. CAMP,**Adjutant-General, Hartford, Conn.*

GENERAL :

In compliance with G. O. No. 10, A.-G. O., dated May 11, 1887, General Orders No. 2 was issued from these headquarters, May 13, 1887, and the dates were therein assigned for the May Parades of the different companies of this command. A copy of this order was duly mailed to your office. Major James C. Crowe was assigned to duty as Field Officer in attendance on Companies B, C, D, E, F, G, and K, and the Machine-Gun Platoon, and his report, which accompanies this, will give you more in detail the work and duty performed by these commands, and which appears by such report to have been of a satisfactory character. Lieut.-Col. Skinner was present at the parade of Company I. The Colonel commanding was present during a portion of each day, when Companies B, E, K, and the Machine-Gun Platoon paraded and took occasion to carefully note the work as it was done at the rifle range and in the field, and takes pleasure in recording the fact that both officers and men took a sincere interest in their work, and endeavored to improve upon the same.

Reports of Lieut.-Col. Skinner, Major Crowe, and Captain Kingman, I. R. P., are transmitted herewith, marked "A," "B," "C," respectively.

Very respectfully,

THOMAS L. WATSON,

Col. Comd'g Fourth Reg't C. N. G.

"A."

WEST WINSTED, CONN.,

May 30, 1887.

*Colonel THOMAS L. WATSON,**Commanding Fourth Regiment C. N. G.*

COLONEL:

In accordance with instructions received from you by telegraph May 26th, I attended the parade and rifle practice of Company I on the 27th instant. There was more interest taken in the rifle practice than at any other time. There were some very good scores made. The company skirmish drills were fairly good. Guard duty was omitted on account of time. The condition and efficiency of the company is in my opinion good.

Very respectfully,

H. SKINNER,

Lt.-Col. Fourth Reg't C. N. G.

"B."

SOUTH NORWALK, CONN.,

May 30, 1887.

*Colonel THOMAS L. WATSON,**Commanding Fourth Regiment C. N. G.*

COLONEL:

I herewith respectfully submit my report as Field Officer detailed to superintend Companies B, C, D, E, F, G, and K, on their respective field days, in accordance with General Orders No. 2, Regimental Headquarters, dated May 13, 1887.

COMPANY B, FRIDAY, MAY 20.

This company, under command of Captain Frank R. Nash, left the armory at 8 A. M. Present for duty, 3 officers, 6 sergeants, 8 corporals, 3 musicians, 37 privates; total 57. Absentees, 2. The entire forenoon was occupied in rifle practice. About four hours was given to company and skirmish drill and instructions in guard duty. A radical change in this company for the better was noticeable from last year. I believe there is a desire on the part of this company to gain for themselves a reputation that will be a credit to the regiment.

COMPANY D, MONDAY, MAY 23.

This company assembled at their armory at 7.30 A. M., there being present 3 officers, 5 sergeants, 7 corporals, 3 musicians, 42 privates; total 61. Absent, 7. Owing to the distance of the rifle range the company did not arrive until 9 o'clock. The company was practiced at two, three, and four hundred yards. At the close of the shooting the company was exercised in skirmish drill and guard duty. The company left the field at 5.30 P. M., after a successful afternoon's drill. The new armory accommodations will enable this company to make themselves more proficient in their drill.

COMPANY F, TUESDAY, MAY 24.

Company assembled at their armory at 7.30 A. M. Present for duty, 3 officers, 6 sergeants, 7 corporals, 2 musicians, 34 privates; total, 52. Absent, 6 privates and 1 corporal. The entire forenoon was spent in rifle practice, after which the company returned to the armory and was dismissed for dinner. They re-assembled and went to a field near the armory, where they were exercised in company and skirmish drill and guard duty. About three hours were thus occupied. In this company, as in Company D, the new armory accommodations will be of great benefit to the company.

COMPANIES B AND E AND MACHINE-GUN PLATOON, WEDNESDAY,
MAY 25.

Roll was called at 8 o'clock A. M. Company B, present for duty, 3 officers, 7 corporals, 2 musicians, 43 privates; total, 61. Absent, 1 corporal, 2 privates; total, 3. Company E, present for duty, 3 officers, 5 sergeants, 8 corporals, 2 musicians, 36 privates; total, 54. Absent, 1 sergeant, 3 privates. Machine-Gun Platoon, present for duty, 1 lieutenant, 2 sergeants, 1 corporal, 5 privates. Upon arriving at the rifle range, Company B commenced their rifle shooting; Company E occupied the forenoon in guard mounting, instructing sentinels, and in skirmish drill. In the afternoon this company went to the rifle range, while Company B devoted the afternoon to company and skirmish drill and guard duty. The Machine-Gun Platoon spent nearly the entire day in the field.

COMPANY K, THURSDAY, MAY 26.

Present for duty, 3 officers, 5 sergeants, 7 corporals, 1 musician, 30 privates; total, 46. Absent, 1 musician, 4 privates; total, 5. Com-

pany left the armory at 8 o'clock. That part of the company that was not engaged at the rifle range was exercised in guard duty and instruction of sentinels. The afternoon was devoted to company and skirmish drill.

COMPANY C, SATURDAY, MAY 28.

Roll-call at 7.30 A. M. Present for duty, 3 officers, 5 sergeants, 6 corporals, 1 musician, 33 privates; total, 48. Absent, 1 sergeant, 2 corporals, 2 musicians, 7 privates; total, 12. This company remained at the rifle range until about 3 o'clock. The balance of the day was devoted to guard duty and skirmish drill.

Captain S. C. Kingman, I. R. P., was present at the parades of the different companies on the above dates, and superintended the rifle practice. All the companies were favored with fine weather. There seemed to be a disposition on the part of the officers and men to do their duty and perfect themselves in drill. Instruction in the duties of a sentinel in saluting, challenging, calling out of guard, etc., should be more often repeated. Failure to salute officers is quite general, and improvement should be made in this respect.

Very respectfully yours,

JAMES C. CROWE,
Major Fourth Reg't C. N. G.

"C."

BRIDGEPORT, CONN., June 14, 1887.

Colonel THOMAS L. WATSON,

Commanding Fourth Regiment, C. N. G.

COLONEL:

Acting under Regimental Orders, No. 2, dated May 13, 1887, I started on Thursday, the 19th of May, for Danbury, to attend the rifle practice of Company G on the morrow. The company turned out on Friday the 20th, with fifty-seven men. Owing to delays, and a long march of over two miles to the range, the time allowed for rifle practice was cut short, being only two and one-half hours, and was quite unsatisfactory to the men as well as to myself, and many of the men were debarred from practice. The afternoon, and until late in evening, was devoted to manœuvring. We left on the 7.20 P. M. train, and the company had not been returned to the armory, and I do not blame the men for complaining.

On Saturday, I brushed up a little extra for a visit to Company C, but on arrival at Norwalk I was notified of the postponement to Saturday the 28th.

On Monday I attended the rifle practice of Company D. Sixty-one men were present, and the attention and practice were good; but a gusty wind prevailed, and the wind gauge was called for duty for all it was available, which fact is a curious feature of that particular range. The time of practice was six hours.

Tuesday was the day for Company F, and as their range was not in order, the company used the range of Company D at Saugatuck. It was late when they arrived with fifty-seven men, and at 9.35 A. M. they made a report at the butts. Two and one-fourth hours were spent there in practice, but had they taken the regular time they would have stood at the head of the regiment in all probability.

Wednesday, the 25th, Company B took the morning for practice, which they did well at for four and one-half hours, and were quite sure [as was I] that they would take the regimental medal. Company E, for four hours in the afternoon, attacked the same butts, and made quite a good showing, while, for want of time and a reduced number of targets, the Machine-gun Platoon was "left out in the cold" for the day. The day's work was quite satisfactory, for the companies were stimulated and encouraged by the presence of the Colonel of the regiment and a goodly number of his staff.

Thursday, Company K of Stratford, with forty-eight men, made good progress, especially with the new men. They were in practice for four hours.

Company I, of Winsted, was attended by Lieutenant-Colonel Henry Skinner. Saturday the 28th I visited Company C. At the firing point the strictest order prevailed, everything working like clock work, with no noise, and I soon found out the reason. The wind was quite fitful, and light and shadow alternately prevailed, but the company commanded by Captain Daniel had determined to make a call for the "Watson Regimental Medal," shot for this spring at the 300 and 400 yard ranges, by teams of eight men from each company, and the scores to be the same as made for the State decoration. The result shows that they were none too careful, as they were at 300 yards a tie with Company B, and also at the 400 yards they were tied, Company C winning with six outers, while Company B had eight outers. The practice was held for six hours.

During the visits to the various companies, I have with some trouble

taken along a large telescope, and its usefulness has been very manifest to myself, and to the commanders of the companies, for many mistakes have been rectified by its use, which otherwise could not have been done.

The table of shooting following will explain itself.

Respectfully,

SAMUEL C. KINGMAN,
Inspector Rifle Practice Fourth Regiment, C. N. G.

RESULTS OF RIFLE PRACTICE, FOURTH REGIMENT, C. N. G., MAY PARADES, 1887.

	NUMBER OF MEN QUALIFYING IN EACH CLASS.			
	Fourth Class.	Third Class.	Second Class.	
	100 Yards.	200 Yards.	300 Yards.	400 Yards.
Company B, May 25th,.....	11	8	29	21
“ C, “ 28th,.....	7	6	35	30
“ D, “ 23d,.....	10	15	29	8
“ E, “ 25th,.....	18	7	8	0
“ F, “ 24th,.....	12	9	30	8
“ G, “ 20th,.....	17	7	11	0
“ I, “ 27th,.....	8	10	10	8
“ K, “ 26th,.....	5	12	29	8
Total,.....	88	74	181	83

Report of Colonel William E. Cone, Commanding First Regiment.

HEADQUARTERS FIRST REGIMENT, C. N. G.,

HARTFORD, June 1, 1887.

GENERAL :

I have the honor to report that in pursuance of General Orders No. 10, A.-G. O., c. s., the following orders were issued from these headquarters :

I. In accordance with General Orders No. 10, A.-G. O., c. s., company commanders are hereby directed to assemble their commands in fatigue uniform, for instruction in rifle practice, skirmish drill, and guard duty, on the following dates :

Company H, Saturday, May 21st.

Company A, Monday, May 23d.

Company B, Tuesday, May 24th.

Company F, Wednesday, May 25th.

Company E, Thursday, May 26th.
Company G, Thursday, May 26th.
Company K, Friday, May 27th.
Company D, Saturday, May 28th.
Machine-Gun Platoon, Monday, May 23d.

II. Companies will report with one day's rations at their respective rifle ranges at 8.30 o'clock A. M., on the days designated above, and no member of the command parading will absent himself from duty except by permission of the field officer in charge.

III. Signal details will report for duty with their companies.

IV. A field officer will be present to superintend each parade, the surgeon or assistant surgeon for examination of recruits, and the Inspector of Rifle Practice for instruction at the rifle range.

Companies B, F, and K performed the duties required of them, under direction of Lieut.-Colonel Thompson; Companies A, D, E, and Machine-Gun Platoon paraded under charge of Major Smith. Reports in detail concerning these companies by the field officers in charge are submitted herewith.

Companies H and G paraded under my personal superintendence.

With a total of 67 upon the rolls, Company H had present for duty 58 men. By systematic arrangement of the rifle practice under direction of Captain Houston, most satisfactory results were accomplished at the range, 38 men being advanced to the first class. About two hours were devoted to company and skirmish drill, also in posting and relieving sentinels, and general instruction in guard duty. Owing to long-continued ill-health Captain McLean, the efficient commander of this company, has been unable to perform military duty for some months, and at present is "absent with leave." First Lieutenant Henry E. Chapman, under whose command the company paraded, is to be commended for the efficient and soldierly performance of the day's duties.

Company G arrived at the range promptly at the hour ordered, 8.30 A. M., with 58 men out of a total of 67 upon the rolls. Of the nine absent, three presented surgeon's certificate of disability. Captain Houston being on duty with Company E at New Britain, I directed Lieut. Penrose, S. O., who was present by my orders, to superintend the rifle practice of this company. As the result of the day's work, 19 qualified in the second class, 12 in the third class, and 25 in the fourth class. About two hours were devoted to instruction in company and skirmish drill. This company, which has a large number of recruits, shows evidence of careful and thorough instruction, and is in a most satisfactory condition.

The total membership of the regiment at this date was 566, an increase of 45 over the previous year, and lacking but 23 of the total allowed by orders. Of the membership, 530, exclusive of the field, staff, and band, there were present for duty 479, being over 90 per cent. of the regiment.

For further information I respectfully invite attention to the reports of Lieut.-Colonel Thompson, Major Smith, and Captain Houston, I. R. P., herewith submitted and marked "A," "B," and "C."

I have the honor to remain,

Very respectfully,

WILLIAM E. CONE,

Colonel.

Brig.-General FREDERICK E. CAMP,

Adjutant-General State of Conn.

(Through Brigade Headquarters.)

	COMPANIES.									Total.
	A	B	C	D	F	G	H	K	M.-G. P.	
Officers and men present,....	66	58	55	62	63	58	58	50	9	479
Officers and men absent,	2	5	8	6	1	9	9	11	0	51
Total present and absent,	68	63	63	68	64	67	67	61	9	530
Add Field, Staff, and Band,.....										36
Total on Rolls,.....										566

"A."

HARTFORD, CONN., May 31, 1887.

Colonel WILLIAM E. CONE,

Commanding First Regiment, C. N. G.

COLONEL:

As Field Officer, detailed by you to superintend Companies B, F, and K on their respective field days, I have the honor to submit the following report:

COMPANY B.

This company, under command of Captain Thomas F. Flanigan, reported at the Regimental Rifle Range, Hartford, at nine o'clock Tuesday morning, May 24. Roll-call, immediately after arrival,

showed present forty-three, absent twenty. Of the twenty absentees, fifteen reported soon after, leaving at the close of the day five absent and fifty-eight present.

Immediately after morning roll-call arms were stacked, and the recruits called to the front and instructed in the school of the soldier, the instruction being imparted to them by non-commissioned officers detailed by the captain. The remainder of the company then began rifle practice in the second class, and as soon as the necessary scores were made at 300 yards, were advanced to the firing point at 400 yards. Practice in this class was carried on from 9.30 A. M. to 3.30 P. M., when the recruits were given an opportunity to shoot at the lower ranges. As a result of the day's practice forty-two made the necessary scores at 300 yards, and thirty-nine at both 300 and 400 yards.

Of the recruits five were successful at 100 yards, and one at 200 yards.

At the conclusion of rifle practice in the second class, the company assembled promptly at the sound of the drum [not the "assembly"] for the company musicians were absent during the day, and the call sounded by the substitute might well have been mistaken for the "surgeon's call." A short skirmish drill of half an hour then followed under command of Second Lieutenant John J. Leahy, which was creditably performed. One hour was given to guard duty, three reliefs being posted and relieved, instruction given in saluting, challenging, turning out the guard, etc. The company showed evidence that they had received proper instruction in guard matters, and very generally were prompt to give the proper salutes and answers to interrogations put to them by the field officer on the subject of guard duty.

It gives me pleasure to note an improvement in this company since my report of a year ago, in the matter of falling in promptly at the call. The appearance of the company was soldierly, and the conduct of every member unexceptionable. With the exception of a failure generally to salute the officers present on meeting them, I have only words of commendation to bestow as a result of my day's observation of this company. The day's duties ended with roll-call at 5.15 P. M., at which fifty-three were present, the remaining five having been excused a short time previously for sufficient reasons by the field officer.

COMPANY F.

Wednesday, May 25th, was their Field Day, and the morning opened cloudy, and gave promise of its being a typical "City Guard Day," but nothing daunted, the company reported in good numbers at the Regimental Rifle Range at 9 A. M. The membership on that day was sixty-four. Of this number fifty-six were present at roll-call on arrival at the range, and seven reported later, making sixty-three present and only one [Private Caswell] absent.

Rifle practice was immediately begun in the second class, by the members qualified to shoot in that class, and during a part of this practice the recruits were instructed in the manual, etc., by non-commissioned officers detailed for that purpose. The shooting in the second class continued until 3 P. M., when the recruits were practiced at the short ranges, and afterwards in the second class.

While the recruits were engaged in rifle practice, the balance of the company formed promptly at "the assembly," and spent an hour in skirmish drill, under the instruction of Captain George B. Newton.

The drill, as a whole, was very satisfactory, though marred by too much talking in the ranks, a fault which was observed and corrected by the captain. During part of this drill Second Lieutenant Louis B. Hubbard commanded the reserve, and showed familiarity with the duties required, executing the necessary manœuvres in a prompt and creditable manner.

After a short rest the entire company was assembled, and instructed for about an hour in guard duty. Lieutenant Hubbard acted as officer of the guard, and sent out three reliefs, who were properly posted and relieved, and instruction given by the officer and non-commissioned officers, in the duties of a sentinel, manner of saluting, calling out the guard, etc., which instruction was verified by the field officer and found correct. The manner in which the guard duty was performed was creditable alike to the officers and men, and showed that considerable attention had been given to this most important but oft-neglected duty.

The result of the day's practice, at the targets, was as follows: 55 qualified in second class, 5 qualified in third class, 6 qualified in fourth class; a very excellent record.

The appearance and deportment of the company was excellent, and all the duties asked were promptly rendered in a praiseworthy manner.

Failure to salute officers on meeting them was too often the rule to

pass unnoticed, and should be corrected by habits formed in the armory. The company left the range at 5.30 P. M.

COMPANY K.

This company, under command of Captain Samuel O. Prentice, reported at the Regimental Rifle Range, Friday, May 27th, at 8.45 A. M. Roll-call, on arrival, showed forty-five present, sixteen absent. Five of the absentees reported later, making fifty present during the day, and leaving the number of absentees eleven, the membership being on that day sixty-one. Of the eleven absentees, three reported at roll-call at the armory at eight o'clock A. M., but were unable to get away from business for the day.

The routine during the day was much the same as that observed by the two preceding companies. The recruits were separated from the rest of the company, and instructed by non-commissioned officers in the school of the soldier, etc., and the balance were called as required to the 300-yards firing point, and instructed by First Lieutenant James H. Jarman in rifle practice; from this point they were passed to 400 yards, after making the necessary scores at the lower range, and instructed in shooting at the longer distance. This practice was begun at 9.15 A. M., and continued until 2.30 P. M.

From that hour, until five o'clock P. M., the recruits were instructed in the fourth, third, and second classes rifle practice, the result of the day's shooting being as follows: 47 qualified in second class, 11 qualified in third class, 11 qualified in fourth class.

From 2.45 to 3.45 P. M., the company, less the recruits, were instructed in the skirmish drill by Second Lieutenant D. W. P. Preston. I have never seen a better exhibition of the skirmish drill.

The officer in command thoroughly understood the duties required of him, and the men seemed to be thoroughly familiar with the duties required of them, and were quick to execute the various evolutions given them to perform. The movements executed were, deploying by both right and left flank; deploying on the right and left four; assembling on the right, left and centre skirmisher; loading and firing from a halt, and on the march, both advancing and retreating; firing lying down; firing while advancing by the flank; rallying by fours and by company; and wheeling on the right, left and centre skirmisher. In view of the fact that the skirmish line is destined to be the fighting line of the future, the evidence of careful attention to the requirements

called for in this drill, by this company, was very gratifying and worthy of commendation and emulation.

The entire company was assembled for guard duty at 4.15 P. M., the posting of reliefs, instruction to sentinels, etc., being continued for one hour. All the prescribed duties and courtesies connected with guard duty seemed to be unusually well understood, and the evidence was unmistakable that very careful and thorough instruction had been given in this most important duty. The observance of the duty of saluting officers was generally well attended to, though some exceptions were noticed. The conduct of the members throughout the day was that of gentlemen, and the appearance and discipline of the company was all that could be desired. Roll-call at 5.30 P. M., ended the duties of the day, forty-eight men being present, the other two having been excused.

I have the honor to remain, very respectfully yours,

CHARLES E. THOMPSON,

Lieutenant-Colonel First Regiment, C. N. G.

"B."

HARTFORD, CONN., May 31, 1887.

Colonel WILLIAM E. CONE,

Commanding First Regiment C. N. G.

COLONEL :

I have the honor to submit herewith my report as field officer detailed by you to superintend Companies A, E, D, and First Machine-gun Platoon, on their respective field days, in accordance with General Orders No. 1, Regimental Headquarters, dated May 13, 1887.

COMPANY A.

Under Captain Schulze this company reported at the rifle range, Hartford, on Monday, May 23d, at 9 A. M., one-half hour late.

The company roll-book showed 68 men on the rolls. Roll-call showed present 59, absent 9. Seven of the absentees reported later, making a total present during the day 66; absent 2, viz.: Privates Burr and Smith. The second-class men were immediately sent to the firing point by Captain Houston, I. R. P., and continued practicing until 3 P. M., with an hour for dinner. The recruits under Second Lieutenant Senk were instructed in guard duty by the field officer, first theoretically, then practically, with good results. The non-com-

missioned officers should be carefully instructed in their duties as sergeants and corporals of the guard.

The afternoon was devoted to skirmish drill and guard duty by the company, while the recruits were being instructed in rifle practice at 100 and 200 yards. The Lieutenants should be well-informed in the skirmish drill, as well as in company movements.

The result of practice at the close of the day was as follows :

Classified at 100 yards,	-	-	-	-	11
Classified at 200 yards,	-	-	-	-	3
Classified at 300 and 400 yards,	-	-	-	-	31

The guard duty was, as a whole, well performed and excellently done in a number of instances, by both corporals and privates.

One thing should be improved upon, viz. : The promptness of falling in after the sounding of the "assembly"; too much delay ensued in every instance, and as this can be easily remedied by the officers of the company, it is to be hoped that an improvement will be shown on the occasion of the next parade of the company. The men are, as a rule, ready and willing to learn, and should be encouraged by their officers. Many of the men, both non-commissioned officers and privates, failed to salute properly, if at all. As this is a matter which can be remedied by proper instruction in the armory, the attention of the company officers is particularly called to this point.

FIRST MACHINE-GUN PLATOON,

under command of Second Lieutenant Avery, reported at the rifle range, Hartford, on Monday, May 23, with Company A. Roll-call showed every member present. The platoon was drilled during the morning by Lieutenant Avery, in saber drill and general instructions.

In the afternoon the members practiced at the 100 and 200 yard ranges with the rifle, and afterward with the machine-gun. This platoon is well drilled and skillfully handled by Lieutenant Avery, and is a credit to the regiment in every way.

COMPANY E,

under Captain A. L. Thompson, reported at the rifle range at Berlin, on Thursday, May 26. Total on roll, 68. Present at roll-call, 56; absent, 12. All absentees reported later in the day, save Corporal Aspinwall, Privates Andrews, Neilson, Richardson, Sexton, and Swanton. The target facilities were of the worst character, a single target frame being used for all the ranges. The second-class men were

practiced, during the morning, under Captain Houston, I. R. P., while the third and fourth classes were instructed in guard duty. The afternoon was spent in skirmish drill and guard duty. The officers and non-commissioned officers should be better informed in their duties in guard duty and skirmish drill, as the instructions to sentinels were rarely correctly given. It is recommended that each non-commissioned officer be supplied with a copy of the card used at the last encampment, entitled "Essentials of Guard Duty," and that they be required to carefully study the same before attempting to instruct others. The officers should be required to study skirmish drill so as to be able to give orders and instruction correctly, which in several instances was not done.

The result of rifle practice at the close of the day was as follows :

Classified at 100 yards,	-	-	-	-	18
Classified at 200 yards,	-	-	-	-	5
Classified at 300 and 400 yards,	-	-	-	-	26

COMPANY D,

under Captain A. N. Bennett, reported at Berlin Saturday, May 28. The rain, which commenced falling on their arrival at Berlin, prevented any practice at the range during the morning, and the company took train back to their armory, arriving there at 9.20. Total on roll, 63. Present, 54; absent, 9. The absentees all reported later, save the following: Second Lieutenant McBriarty, Privates Bevens, Berner, Jones [F.], Lane, and Mead. The company was drilled in the manual by Captain Bennett, and in company movements by First Lieutenant Allen, while the non-commissioned officers were being instructed by the field officer in the company room, after which the company were instructed in guard duty. The rain having ceased the second-class men took train at 12.27 for Berlin, where, under Captain Houston, I. R. P., they practiced at 300 and 400 yards. No opportunity was afforded for the lower class men to practice, and they were held at the armory and instructed in guard duty, during the entire afternoon, by the field officer. I find that the non-commissioned officers are not properly instructed in guard duty, and recommend that they be furnished with, and required to study, the "Essentials of Guard Duty," until they are able to properly instruct sentinels.

The result of practice at the close of the day was as follows :

Classified at 300 and 400 yards,	-	-	-	-	9
Classified at 200 yards,	-	-	-	-	0
Classified at 100 yards,	-	-	-	-	0

I would recommend that when these companies—E and D—are without a range in their own town, that they be ordered to report at some place where there are proper target facilities, and not waste the time of the I. R. P. in trying to qualify men at such an imperfect range as that at Berlin.

Very respectfully, your obedient servant,

THOMAS M. SMITH,
Major First Regiment C. N. G.

“C.”

HEADQUARTERS FIRST REGIMENT, C. N. G.
HARTFORD, June 1, 1887.

Colonel WILLIAM E. CONE,

Commanding First Regiment C. N. G.

COLONEL:

I have the honor to enclose herewith report of Field Day Rifle Practice held according to General Orders No. 1, Regimental Headquarters, dated May 31, 1887.

Owing to stormy weather on the 28th, only a short time was devoted to practice, and none of the new men in Company D, of whom there was a large number, were able to shoot. With this exception all the companies had fine weather, and, considering the large number of recruits and the poor range facilities of Companies D and E, I think the records all show good work.

Very respectfully yours,

JAMES B. HOUSTON,
Captain and I. R. P. First Regiment C. N. G.

REPORT OF FIELD DAY RIFLE PRACTICE, FIRST REGIMENT, C. N. G.,
MAY 21, 23, 24, 25, 26, 27, 28, 1887.

CLASS.	Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.		Qualifying. Failing.	
	A		B		D		E		F		G		H		K		M.-G. P.		TOTAL.	
Second,	31	19	39	7	9	7	27	14	55	5	19	18	38	10	47	1	4	0	269	81
Third,	3	8	1	7	0	0	5	11	5	1	12	13	8	7	11	0	5	0	50	47
Fourth,	11	4	5	1	0	0	18	2	6	2	25	8	15	1	11	0	5	0	96	18
Total, ....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	415	146

Report of Colonel Walter J. Leavenworth, Commanding Second Regiment.

HEADQUARTERS SECOND REGIMENT, C. N. G.,

WALLINGFORD, June 2, 1887.

Brigadier-General FREDERICK E. CAMP,

Adjutant-General State of Connecticut.

GENERAL:

Pursuant to General Orders No. 10, Adjutant-General's Office, dated May 11, 1887, this command was ordered to parade by company, May 20th, 24th, 25th, 26th, 27th, and 30th.

The parades of Companies B, C, D, and F were attended by Major Frank T. Lee; Companies A and G by Lieut.-Colonel John B. Doherty, and H, E, K, I, and Machine-Gun Platoon, by myself. Captain Andrew Allen, I. R. P., and First Lieut. William E. Jackson, Signal Officer, attended the parades of all the companies.

A half day was occupied by each company in drill, and a half day in rifle practice. As heretofore, the time allotted to rifle practice was in most cases insufficient, and the work remained incomplete, although all the companies spent the time profitably. Skirmish drill and also guard duty was especially attended to as ordered.

I enclose herewith consolidated morning report, by which it will be seen that out of a total company strength of 658, 623 paraded, or 94.57 per cent.

The total membership of the regiment is now 693, as against 608 last year, being a gain of 85, or 14 per cent., and lacking only 33 of the number permitted by orders.

I can say, with a great deal of assurance, that the regiment is earnest and enthusiastic with, perhaps, the exception of Company H, the enthusiasm that generally pervades the regiment not having reached that company; and while every other company has improved, it must be confessed that Company H remains about the same as a year ago.

It was noticed that quite a number of men were obliged to parade in citizens' clothes, not having received their uniforms, a condition of things which will no doubt soon be remedied by the Quartermaster-General.

Very respectfully,

WALTER J. LEAVENWORTH,

Colonel Second Regiment C. N. G.

CONSOLIDATED REPORT OF THE SECOND REGIMENT, CONNECTICUT NATIONAL GUARD, MAY PARADES, 1887.

PARADE BY COMPANY.	PRESENT.										ABSENT.						RECAPITULATION.			
	FOR DUTY.						SICK.				WITH LEAVE.			WITHOUT LEAVE.			PRESENT ABSENT.		PRESENT ABSENT.	
	Captains.	Lieutenants.	Sergeants.	Corporals.	Musicians.	Privates.	Total.	Non-Com. Officers.	Privates.	Total.	Line Officers.	Non-Com. Officers.	Musicians.	Privates.	Total.	Commissioned Officers.		Enlisted Men.		
																Commissioned Officers.	Enlisted Men.	Commissioned Officers.	Enlisted Men.	
Co. A, Capt. F. L. Blakely, May 27,.....	1	2	6	7	3	47	66	66	.....	.....	.....	.....	.....	.....	.....	1	3	63	1	64
Co. B, Capt. J. Gutt, May 24,.....	1	2	6	8	3	41	61	61	.....	.....	.....	.....	.....	.....	.....	1	3	58	9	64
Co. C, Capt. J. Garrity, May 20,.....	1	1	5	7	2	42	58	58	1	1	1	1	1	5	8	2	3	56	7	63
Co. D, Capt. A. H. Embler, May 20,.....	1	2	4	5	3	52	67	67	.....	.....	.....	.....	.....	1	1	1	3	64	1	65
Co. E, Capt. T. H. Sucher, May 25,.....	1	2	6	5	1	52	67	67	.....	.....	.....	.....	.....	2	2	1	3	64	1	65
Co. F, Capt. C. C. Ford, May 24,.....	1	2	6	8	2	39	58	58	.....	.....	.....	.....	.....	2	2	2	3	64	2	65
Co. G, Capt. A. J. Wolff, May 27,.....	1	2	5	8	3	44	63	63	.....	.....	.....	.....	.....	.....	.....	1	3	55	4	60
Co. H, Capt. W. U. Pearne, May 26,.....	1	2	3	4	2	37	49	49	.....	.....	.....	.....	.....	5	7	3	3	60	8	67
Co. I, Capt. H. B. Wood, May 30,.....	1	2	5	5	2	48	63	63	.....	.....	.....	.....	.....	2	7	1	3	46	3	54
Co. K, Capt. B. A. Treat, May 30,.....	1	2	5	6	1	47	62	62	.....	.....	.....	.....	.....	2	3	1	3	60	3	57
2d M-G. P., 2d Lt. W. H. Sears, May 25,.....	...	1	2	2	...	4	9	9	.....	.....	.....	.....	.....	.....	.....	.....	1	8	1	8
Total,.....	10	20	53	65	22	453	623	623	.....	.....	623	1	5	1	18	25	30	593	1	34

Report of Colonel George Haven, Commanding Third Regiment.

HEADQUARTERS THIRD REGIMENT, C. N. G.,

NEW LONDON, June 1, 1887.

GENERAL :

I have the honor to report that on receipt of General Orders, No. 10, A.-G. O., c. s., orders were issued from these headquarters for the parade of this regiment by companies. Finding that the Quartermaster-General's Department was unable to furnish target-houses for the New London companies in time, the orders were changed, and Companies A, D, I, and the Machine-Gun Platoon were paraded as a battalion. All the other companies were allowed until 2 P. M. for rifle practice. From 2 P. M. to 5.30 P. M. the time was devoted to instruction in skirmish drill and duty of sentinels. The skirmish drills were well performed, Companies D, E, and G using the trumpet. The companies, with one exception, had been properly instructed in sentinel duty.

Owing to the rain May 25th, the day on which Companies A, D, I, and the Machine-Gun Platoon paraded, I was unable to carry out the programme previously arranged, and could only work them in the armory.

I find in all companies a tendency on the part of company commanders to carry on company rolls men who have removed from the State, and who are not available, and I have ordered all captains to apply for the immediate discharge of all this dead-wood. About half the absentees of the entire regiment are from companies A and I of New London. Company I has too much dead-wood, and in Company A, which is a new company, the men were not properly warned owing to its officers not properly understanding their duties in this respect.

I forward with the Consolidated Morning Report a list of absentees ; also report of Captain J. E. Harris, I. R. P., who had supervision of all rifle practice. First Lieut. Allen, Signal Officer, was unable to attend the parades on account of pressing business matters, which had been neglected during the long session of the Legislature.

I have the honor to be,

Very respectfully, Your obedient servant,

GEORGE HAVEN,

Col. Comd'g.

Brig.-General FREDERICK E. CAMP,

Adjutant-General State of Conn.

(Through Brigade Hdqrs.)

NEW LONDON, CONN.,

May 28, 1887.

Colonel GEORGE HAVEN,*Commanding Third Regiment C. N. G.*

COLONEL :

In accordance with orders issued from Regimental Headquarters, dated May 12th, I attended the rifle practice of the several companies of this regiment, and have the honor to make the following report :

There seems to be more interest taken in rifle practice and a general desire to qualify more men, and I expect to see a large increase in the number of men entitled to badges at the end of this season.

Companies B, C, E, F, and G had fine weather for shooting, but owing to rainy weather on the 25th the practice at the range had to be given up in New London, so I devoted part of the day giving instructions to Company A in rifle shooting. After the parade in the afternoon part of Company I went to the range and qualified a few men.

Below you will find the result of the practice of the different companies. Where there is no report in the second class we did not have time to shoot on that range.

CLASS.	NUMBER QUALIFYING.								TOTAL.
	A	B	C	D	E	F	G	I	
Fourth,.....	..	18	7	..	21	9	11	10	76
Third,.....	..	7	5	..	14	4	7	10	47
Second,.....	7	6	13	9	35

Very respectfully yours,

J. EMERSON HARRIS,

Captain and Inspector Rifle Practice Third Regiment, C. N. G.

CONSOLIDATED REPORT OF THE THIRD REGIMENT, CONNECTICUT NATIONAL GUARD, MAY PARADES, 1887.

PARADE BY COMPANY.	PRESENT.						ABSENT.						RECAPITULATION.								
	FOR DUTY.						WITH LEAVE.			WITHOUT LEAVE.			PRESENT.		ABSENT.		PRESENT AND ABSENT.				
	Captains.	Lieutenants.	Sergeants.	Corporals.	Musicians.	Privates.	Total.	Non-Com. Officers.	Musicians.	Privates.	Total.	Non-Com. Officers.	Privates.	Total.	Commissioned Officers.	Enlisted Men.	Commissioned Officers.	Enlisted Men.	Enlisted Men.		
Co. A, Capt. J. Moran, May 25.....	1	2	6	7	1	40	44	1	1	5	5	13	5	18	3	41	18	3	59	62	
Co. B, Capt. D. Keleher, May 21.....	1	2	4	7	1	28	37	1	1	2	2	5	5	7	3	54	7	3	61	64	
Co. C, Capt. T. B. Linton, May 19.....	1	2	6	8	2	37	43	1	1	1	1	1	1	2	3	40	8	3	48	51	
Co. D, Capt. F. E. St. Clare, May 25.....	1	2	6	7	3	30	39	1	1	1	1	1	1	3	3	53	6	3	59	62	
Co. E, Capt. P. Fitzpatrick, May 20.....	1	2	6	7	3	30	39	1	1	1	1	1	1	3	3	46	8	3	54	57	
Co. F, Capt. P. L. Gibson, May 23.....	1	2	5	8	2	33	44	1	1	1	1	1	1	3	3	41	5	3	45	49	
Co. G, Capt. C. A. Winslow, May 24.....	1	2	5	5	3	39	55	1	1	1	1	1	1	3	3	52	3	3	55	58	
Co. I, Capt. A. N. Sterry, May 25.....	1	2	5	5	2	34	52	1	1	4	5	9	9	14	3	49	14	3	63	66	
3d M-G. P., 2d Lieut. C. F. Chaney, May 25.....	.....	1	1	1	.....	4	7	1	1	1	1	.....	.....	.....	1	6	1	1	7	8
Total.....	8	17	35	47	15	285	407	3	2	10	15	2	53	55	70	25	382	70	25	452	477

PARADE BY COMPANY.

Report of Major Frank M. Welch, Commanding Fifth Battalion.

HEADQUARTERS FIFTH BATTALION,
CONNECTICUT NATIONAL GUARD,
BRIDGEPORT, June 1, 1887.

Brigadier-General FREDERICK E. CAMP,
Adjutant-General.

GENERAL:

I have the honor to submit report of the May Parades of the companies of this battalion, in accordance with General Orders, No. 10, A.-G. O., c. s.

The parades were made on the following dates:

Company B, May 20th; present for duty, 57.

Company A, May 23d; present for duty, 46.

Company C, May 31st; present for duty, 50.

The average time occupied by each company was four hours at rifle practice, and four hours at guard and skirmish drill. A great earnestness was shown by all to make the most of the day; many good scores were made at the butts.

The skirmish drill was good, and the desire to comprehend the duties of the sentinel was manifested throughout the whole command.

While there is always room for improvement, I consider that the companies of this battalion are in good and efficient condition.

The Signal Sergeant reported for duty at the company parades, and under his instructions the signal men made excellent use of the days.

I transmit herewith report of Captain Andrew Allen, I. R. P., Second Regiment, C. N. G., regarding rifle practice Company A, of this command.

Respectfully yours,

MAJOR FRANK M. WELCH,
Commanding Fifth Battalion, C. N. G.

NEW HAVEN, June 22, 1887.

Major FRANK M. WELCH,
Commanding Fifth Battalion, C. N. G.

MAJOR:

In compliance with General Orders, No. 10, A.-G. O., and General Orders, No. 2, dated Bridgeport, May 12th, I attended Company A,

Fifth Battalion, for instruction in rifle practice. Captain Lathrop reported on the range promptly with forty-six men.

Practice commenced at 100 and 300 yards at once, and was kept up through the day with good satisfaction. I find the discipline of this company excellent, every order being obeyed cheerfully. I find the rifles are in bad condition. Fully fifty per cent. will soon be unserviceable unless repaired, the forearm being loose on some, and others the ramrod coming out every time they are fired, making it very dangerous when using ball cartridge. I would recommend this be attended to as soon as possible.

I remain, yours truly,

A. ALLEN,

Inspector Rifle Practice, Second Regiment, C. N. G.

Report of Captain Arthur S. Fowler, Commanding Battery A.

HEADQUARTERS BATTERY A,

CONNECTICUT NATIONAL GUARD,

GUILFORD, CONN., May 31, 1887.

Brigadier-General FREDERICK E. CAMP,

Adjutant-General, State of Connecticut,

[THROUGH BRIGADE HEADQUARTERS.]

GENERAL:

In compliance with G. O. No. 10, A.-G. O., dated May 11, 1887, I attended the May parades of both platoons of Battery A, C. N. G., and have the honor to submit the following report:

The First Platoon, Lieutenant William H. Lee commanding, paraded May 27th.

Although this platoon has made a very poor showing in its attendance during the past winter, it is at present in fine condition. Two officers and thirty-six enlisted men were in attendance; not a man was absent. The day was spent in field practice; about eight hours' duty was performed, counting from roll-call to dismissal.

The Second Platoon, under the command of Lieutenant James T. Reynolds, paraded May 28th. Two officers and thirty-six enlisted men were also present in this platoon; only two were absent. The drill and the time occupied were about the same as that of the First Platoon. Some excellent volley firing was performed.

The men of each platoon performed their duty cheerfully, and in a satisfactory manner.

Very respectfully yours,

ARTHUR S. FOWLER,

Captain Battery A.

[8.]

REPORTS OF EXAMINING BOARD.

CAMP SMITH, NIAHTIC, CONN.,

August 28, 1886.

*Brigadier-General S. R. SMITH,**Adjutant-General, State of Connecticut.*

SIR:

In compliance with General Orders, No. 12, dated Adjutant-General's Office, Hartford, August 10, 1886, the examining board thereby appointed convened at this encampment August 24, 1886, and proceeded to examine the officers ordered to appear before it, as thoroughly as the very large number of officers to be examined, and the limited time allowed, would permit.

We have the honor respectfully to recommend that the following-named officers be commissioned in the C. N. G. :

BATTERY A.

Captain ARTHUR S. FOWLER.

First Lieutenant JAMES T. REYNOLDS.

First Lieutenant EDWARD M. GILLETTE.

Second Lieutenant JAMES H. BARKER.

Second Lieutenant NELSON S. LEETE.

FIRST REGIMENT.

Major THOMAS M. SMITH.

Captain JAMES B. HOUSTON, I. R. P.

First Lieutenant WALLACE T. FENN, Paymaster.

First Lieutenant MORRIS PENROSE, Signal Officer.

Captain SAMUEL O. PRENTICE.

Captain THOMAS F. FLANIGAN.

First Lieutenant JAMES H. JARMAN.

First Lieutenant WILLIAM E. ALLEN.

First Lieutenant PATRICK H. SMITH.

Second Lieutenant CHARLES L. BISSELL.

Second Lieutenant DEWITT P. PRESTON.

Second Lieutenant HENRY AVERY.

Second Lieutenant JOHN J. LEAHY.

SECOND REGIMENT.

First Lieutenant FRANCIS J. DUFFY, Quartermaster.

Captain JOHN GARRITY.

Captain JOHN GUTT.

Captain ALFRED J. WOLFF.

Captain FRANK L. BLAKELY.

First Lieutenant CHARLES B. BOWEN.

First Lieutenant TIMOTHY F. CALLAHAN.

First Lieutenant LEMAN H. BATES.

First Lieutenant JOHN WIDMAN, JR.

First Lieutenant LUCIEN F. BURPEE.

First Lieutenant KYRON J. FARRELL.

Second Lieutenant MICHAEL CREED.

Second Lieutenant CHARLES G. MILLER.

Second Lieutenant WILLIAM H. SEARS.

THIRD REGIMENT.

Colonel GEORGE HAVEN.

Lieutenant-Colonel MICHAEL TWOMEY.

Major WILLIAM F. BIDWELL.

First Lieutenant THOMAS H. ALLEN, Signal Officer.

First Lieutenant CHARLES F. STARR, Quartermaster.

Major LEONARD B. ALMY, Surgeon.

Captain J. EMERSON HARRIS, I. R. P.

First Lieutenant HENRY L. HAMMOND, Assistant Surgeon.

Captain PAUL L. GIBSON.

Captain PATRICK FITZPATRICK.

Captain DANIEL KELEHER.

First Lieutenant JOHN ARMSTRONG.

First Lieutenant THOMAS B. LINTON.

First Lieutenant CORNELIUS BRANSFIELD.

Second Lieutenant JOHN H. MORRISON.

Second Lieutenant KENT A. DARBIE.

Second Lieutenant HERBERT N. SMALL.

Second Lieutenant EDMUND KELEHER.

FOURTH REGIMENT.

First Lieutenant CHARLES S. MURRAY, Assistant Surgeon.

Captain RUSSELL FROST.

Captain EUGENE MOREHOUSE.

First Lieutenant CORNELIUS ELWOOD.

First Lieutenant GEORGE L. STEVENS.

First Lieutenant STILES JUDSON, JR.

Second Lieutenant EDWIN F. HALL.

Second Lieutenant HENRY MATHEIS.

The following officers failed to pass a satisfactory examination :

Second Lieutenant JOHN MCBRIARTY, First Regiment.

Second Lieutenant CHARLES C. FORD, Second Regiment.

Second Lieutenant FRANK M. BRONSON, Second Regiment.

Second Lieutenant MICHAEL COONEY, Second Regiment.

Captain CHARLES H. GILBERT, Third Regiment.

Second Lieutenant JOHN A. HALDIN, Fourth Regiment.

In the cases of Second Lieutenant John McBriarty, First Regiment, and Second Lieutenants Charles C. Ford and Frank M. Bronson, Second Regiment, the circumstances are such that we respectfully recommend that they be allowed another examination before final action upon their appointments.

The Board regret to state that but few officers have made a sufficient study of the Connecticut Regulations, especially such portions as relate to official correspondence, also to the duties of guards and sentinels, as would enable them to give thorough and uniform instructions in those important duties.

The Board respectfully recommend that measures be taken, as early as practicable, to adopt a uniform system of tactics for the Machine-Gun Platoons, which at present is much needed. The Board would also respectfully call attention to the discrepancies at present existing between the United States Army Regulations and Tactics and the Connecticut Regulations, occasioned chiefly by the changes published in orders from the office of the Adjutant-General of the Army.

It is recommended that the Connecticut Regulations be made to conform to those of the United States Army.

The Board, although holding evening sessions and remaining until Saturday noon, were enabled in but few cases to find time to witness the practical field work of the officers under examination, which

they deem very desirable, and would respectfully recommend that in future the Board be convened on the first day of the encampment, and that suitable quarters be provided on the grounds for use of the members of the Board, to enable them to devote more time to their duties.

[Signed.]

FRED'K E. CAMP,	} <i>Examining Board.</i>
WM. H. TUBBS,	
T. ATTWATER BARNES,	
WM. H. LEE,	

NEW HAVEN, CONN., October 21, 1886.

Brigadier-General STEPHEN R. SMITH,

Adjutant-General State of Connecticut.

SIR :

In compliance with Special Orders No. 95, dated Adjutant-General's Office, Hartford, October 5, 1886, the Examining Board appointed by General Orders No. 12, c. s., re-convened at the Second Regiment Armory, October 21, 1886, and proceeded to re-examine the following-named officers who were ordered to appear before it, viz. :

Second Lieutenant JOHN MCBRIARTY, First Regiment.

Second Lieutenant CHARLES C. FORD, Second Regiment.

Second Lieutenant FRANK M. BRONSON, Second Regiment.

We have the honor respectfully to recommend that all of the above-named officers be commissioned in the C. N. G.

Respectfully,

[Signed.]

F. E. CAMP,	} <i>Examining Board.</i>
WM. H. TUBBS,	
T. ATTWATER BARNES,	
WM. H. LEE,	

HARTFORD, May 18, 1887.

Brig.-General FREDERICK E. CAMP,

Adjutant-General State of Conn.

SIR :

We, the members of the Examining Board, designated in General Orders No. 8, dated Adjutant-General's Office, April 21, 1887, convened at the time and place named in said order, and re-convened in accordance with the instructions of Special Orders Nos. 34 and 36, subsequently issued from the same office.

We carefully and thoroughly examined all officers reporting to us under the above-mentioned orders, according to the requirements of Section 4, Article XXV, Regulations C. N. G., 1884, and the following-named officers passed satisfactory examinations:

BRIGADE STAFF.

Major ALEXANDER ALLEN, Brigade Inspector.

FIRST REGIMENT.

Captain GEORGE B. NEWTON.

Captain JOHN HICKEY.

First Lieutenant HENRY E. CHAPMAN.

First Lieutenant CHARLES L. BISSELL.

Second Lieutenant CHARLES H. PATTERSON.

Second Lieutenant LOUIS B. HUBBARD.

SECOND REGIMENT.

Lieut.-Colonel JOHN B. DOHERTY.

Major FRANK T. LEE.

Captain CHARLES C. FORD.

First Lieutenant WILLIAM H. NEWTON, Paymaster.

First Lieutenant CHARLES G. MILLER.

First Lieutenant HARVEY S. MUNSON.

Second Lieutenant DANIEL E. FITZPATRICK.

Second Lieutenant GEORGE M. SCHAFFNER.

Second Lieutenant JOHN T. GILL.

Second Lieutenant EDWARD I. WILLIAMS.

THIRD REGIMENT.

Captain THOMAS B. LINTON.

First Lieutenant WILLIAM E. PENDLETON, Quartermaster.

First Lieutenant GEORGE M. COLE, Paymaster.

First Lieutenant FRANK P. GOFF.

First Lieutenant JOHN F. MURRAY.

First Lieutenant IRVING E. HILL.

Second Lieutenant SAMUEL PRINCE.

Second Lieutenant FRED. A. FOX.

FOURTH REGIMENT.

Major GEORGE L. PORTER, Surgeon.
First Lieutenant CHARLES H. GIBNER.
Second Lieutenant GARRIE P. SANGER.
Second Lieutenant JOHN MCGRAW.
Second Lieutenant WILLIAM J. PHILLIPS.

FIFTH BATTALION.

Second Lieutenant CHARLES E. FULLER.

The following-named officers failed to pass a satisfactory examination :

Captain JAMES MORAN, Third Regiment.
Second Lieutenant EDWARD R. MAY, Third Regiment.
Second Lieutenant GEORGE H. WILKINSON, Second Regiment.

In the case of Second Lieutenant Edward R. May, as it is but a short time since he was elected to office in a recently-organized company, and as he comes from civil life without previous military experience, the Board unanimously recommend that he be allowed another examination.

The following-named officer failed to present himself for examination :

Second Lieutenant WILLIAM H. SCHILDGE, First Regiment.

All of which is respectfully submitted,

FREDERICK E. CAMP,	} <i>Examining</i> <i>Board.</i>
WILLIAM H. TUBBS,	
T. ATTWATER BARNES,	
W. H. STOWE,	

[9.]

REPORT OF BOARD OF INSPECTION.

HARTFORD, CONN., April 27, 1887.

GENERAL :

Pursuant to Special Orders No. 23, dated State of Connecticut, Adjutant-General's Office, March 8, 1887, the undersigned, a Board of Inspection convened at the State Arsenal on Friday, March 11, 1887, at 9 o'clock in the forenoon, and on said day and on the 16th, 22d, and 25th days of March following, and on the 12th and 27th days of April, proceeded to inspect certain property of the State reported to us by the Quartermaster-General as unserviceable. The result of said inspection and our recommendations founded thereon are as follows :

The following clothing, stored in the main building, is in good condition, but by reason of the changes made in the uniform of the National Guard is unnecessary to the State, and we recommend that it be disposed of by sale or otherwise to the best interests of the State, viz. :

- . 270 dress coats.
- 104 dress trousers.
- 138 blouses.

The following clothing, equipments, and camp and garrison equipment examined by us we find to be unserviceable to the State, and we recommend that the same be disposed of by sale or otherwise to the best interest of the State, viz. :

- 2389 Dress coats.
- 2173 Dress trousers.
- 2128 Blouses.
- 1676 Helmets.
- 903 Shakos.
- . 727 Fatigue caps.
- 522 Pairs epaulettes.
- 2 Shoulder knots [brigade orderly].
- 3 Non-commissioned officers' swords.
- . 6 Non-commissioned staff swords.

- 2 Musicians' swords.
- 1 Non-commissioned staff scabbard.
- 2 Non-commissioned staff fatigue waist belts.
- 1 Scabbard for sabre bayonet.
- 558 Waist belt plates.
- 606 Cross belt plates.
- 814 Waist belts [white].
- 609 Bayonet scabbard belts [white].
- 83 Color belts.
- 21 Non-commissioned staff cross belts.
- 21 Non-commissioned staff cross belt plates.
- 618 Cartridge-box belts.
- 269 Old U. S. cross belt plates.
- 729 Cartridge boxes [C. N. G.].
- 665 Bayonet scabbards.
- 115 Cavalry cartridge boxes.
- 115 Cavalry cartridge-box plates.
- 28 Bayonet scabbards [old U. S.].
- 1 Canteen.
- 4 Post flags.
- 685 Set miscellaneous chevrons [worn — old style].
- 38 Set miscellaneous chevrons [new — old style].
- 77 Helmet plumes.
- 38 Aigrettes.
- 218 Pompons — red.
- 658 Pompons — white.
- 20 Set band shoulder knots.
- 1 Knapsack.
- 2 Drums.
- 23 Drum-heads.
- 2 Drum covers.
- 5 Drum slings.
- 5 Drum ropes.
- 65 Music pouches.
- 53 Band waist belts.
- 17 Sponges.
- 6 Sponge covers.
- 4 Sponge buckets.
- 2 Tar buckets.

- 3 Water buckets — gutta percha.
- 2 Water buckets — leather, iron bound.
- 114 Sword throgs.
- 22 Old United States waist belts.
- 95 Cap pouches.
- 2 Blue blankets.
- 1 Magenta blanket.
- 3 Old gray blankets.
- 1 Single gray blanket.
- 1 Medicine chest.
- 70 Artillery sabre belts.
- 9 Fifes.
- 3 Bugles.
- 3 Bugle cords and tassels.
- 25 Drum-stick carriages.
- 70 Saddle girts.
- 74 Whitney naval pistols.
- 73 Ball moulds.
- 69 Cone wrenches for Whitney naval pistols.
- 1 Artillery guidon.
- 15 Markers.
- 325 Wooden tompions.
- 20 Rear sights.
- 108 Cone wrenches.
- 579 Cones for rifle muskets.
- 4 Thumbstalls.
- 4 Tow hooks.
- 8 Priming wires.
- 1 Cannon lock.
- 1 Eprouvette.
- 2 Bullet moulds.
- 349 Cone picks.
- 7 Peabody rammers.
- 3 Peabody rifled muskets.
- 9 Peabody bayonets.
- 7 Springfield rifled bayonets.
- 1 Six-pounder rammer and stave.
- 1 Box percussion caps.
- 8 A tents.

- 3 Wall tents.
- 8 Wheel saddles, complete.
- 8 Lead saddles, complete.
- 14 Bridles.
- 9 Halters.
- 20 Pair hames.
- 4 Valises.
- 8 Wheel breechings, complete.
- 6 Nose bags.
- 8 Sets wheel traces.
- 7½ Sets lead traces.
- 2 Pairs breast straps.
- 7 Collars.

Included in the foregoing schedule are certain dress coats, which we estimate at about 500, certain dress trousers, which we estimate at about 225, and a few other articles, the condition of which is from fair to good, but which are of no use to the State.

The following ordnance, inspected by us, we find upon the report of William B. Hunt, Jr., made in November, 1885, and on file in the Quartermaster-General's office, and other information obtained by us, to be unserviceable to the State, and recommend that the same be disposed of, viz. :

- 1 Six-pounder rifled Hotchkiss gun, 1860, C. Alger & Co., weight, 931 lbs.; bronze, with carriage and caisson.
- 1 Six-pounder rifled gun, 1847, Ames, weight, 880 lbs.; bronze, with carriage and caisson.

The following ordnance, inspected by us, we find to be safe and in condition for use, but of such obsolete patterns as to be practically unserviceable to the State, and we would recommend that they be sold, if the Adjutant-General should approve such sale, upon the terms which may be offered for them, viz. :

- 1 Six-pounder smooth-bore Napoleon, 1864, Ames Manufacturing Company, weight, 857 lbs.; bronze, with carriage and caisson.
- 1 Six-pounder smooth-bore Napoleon, 1862, Ames Manufacturing Company, weight, 876 lbs.; bronze, with carriage and caisson.
- 1 Twelve-pounder Howitzer, 1862, Ames Manufacturing Company, weight, 793 lbs.; bronze, with carriage and caisson.
- 1 Twelve-pounder Howitzer, 1862, Ames Manufacturing Company, weight, 802 lbs.; bronze, with carriage and caisson.

The following ordnance, presented to us for inspection, we recommend to be retained by the State :

- 1 Twelve-pounder smooth bore gun, 1864, Ames Manufacturing Company, bronze, weight, 1,213 lbs. ; with carriage and caisson.

BRIGADIER-GENERAL JOHN B. CLAPP,

Commissary General, Conn.,

MAJOR ALEXANDER ALLEN,

Brigade Inspector, C. N. G.,

CAPTAIN SAMUEL O. PRENTICE,

Company K, First Regiment, C. N. G.

Brigadier-General FREDERICK E. CAMP,

Adjutant-General.

[10.]

PENSION AND WAR SERVICE CLAIMS.

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, CONN., Nov. 30, 1887.

Brig.-Gen. FREDERICK E. CAMP,

Adjutant-General.

GENERAL:

I have the honor to submit the following report, showing the nature and amount of assistance rendered by this office to pension and other claimants, during the period beginning July 1, 1886, and ending Nov. 30, 1887:

PENSIONS.

Original claim, soldier,	.	.	.	.	.	.	.	27
“ “ widow,	.	.	.	.	.	.	.	23
“ “ mother,	.	.	.	.	.	.	.	4
“ “ father,	.	.	.	.	.	.	.	2
“ “ minors,	.	.	.	.	.	.	.	2
Increase,	.	.	.	.	.	.	.	62
Restoration,	.	.	.	.	.	.	.	3—123

Bounty, Back Pay, etc.

Soldiers,	.	.	.	.	.	.	.	9
Heirs,	.	.	.	.	.	.	.	7—16

Amendments of Record,

Including re-muster, removal of charge of desertion, etc.,	.	.	.	.	.	.	.	27
Total claims filed,	.	.	.	.	.	.	.	166

VOUCHERS EXECUTED.

Pensions accruing June 4, 1886, 210; cash amount,	.	.	.	.	.	.	.	\$7,455.89
“ “ Sept. 4, 1886, 207; “ “	.	.	.	.	.	.	.	7,065.73
“ “ Dec. 4, 1886, 209; “ “	.	.	.	.	.	.	.	10,157.83
“ “ Mar. 4, 1887, 228; “ “	.	.	.	.	.	.	.	10,745.32
“ “ June 4, 1887, 232; “ “	.	.	.	.	.	.	.	10,541.42
“ “ Sept. 4, 1887, 228; “ “	.	.	.	.	.	.	.	8,517.67

Total from June 30, 1886, to Nov. 30, 1887, . . . \$54,483.86

The total amount collected on vouchers executed in this office since

June, 1871, is . . . \$485,320.81

The number of pension claims filed through this office, which have been granted, from June 30, 1886, to Nov. 30, 1887, has been 66, and the cash amount realized by pensioners from first payment thereon, has been \$15,564.76.

This record shows little diminution in the amount of gratuitous assistance which the Adjutant-General is called upon to render applicants whose claims are based upon service in the Civil War.

During the period covered by this report, no change has been made by Congress in pension legislation, and so long as conditions on which pensions are granted remain as now, no increase in the number of applicants or the amount of work necessitated is probable. There is reason to expect, however, that an important change in pension legislation may soon occasion such an increase in the number of applicants filing their claims through this office as to render an additional clerical force imperatively necessary.

I am, General,

Very respectfully,

Your obedient servant,

GEO. M. WHITE,

Colonel and Assistant Adjutant General.

[I I .]

GENERAL ORDERS, CIRCULARS, AND IMPORTANT SPECIAL ORDERS.

General Orders and Circulars.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 12. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 10, 1886.

I. An Examining Board for the examination of officers of the Connecticut National Guard, in accordance with law, will convene at Camp Smith, Niantic, on Tuesday, August 24 inst., at 10 o'clock A. M., and will make return to this office of the name and rank of each officer examined, and the result of such examination in detail.

The examination will be conducted in a thorough manner and strictly in accordance with Sec. 4, Art. XXV, Regulations C. N. G., 1884.

II. The Board will consist of General Frederick E. Camp, of Middletown, Colonel William H. Tubbs, of New London, Major T. Attwater Barnes, of New Haven, and Captain William H. Lee, of Guilford.

III. Brigadier-General Charles P. Graham, commanding Brigade C. N. G., will detail an orderly for duty on the Board, to report to the President of the Board.

IV. The President of the Board will notify the commanding officer of each Regiment and the Battery of the time at which the officers of his command will report for examination.

V. The following-named officers are hereby ordered to appear before said Board for examination; the officers of the Battery on Tuesday, Aug. 24, and the other officers at the call of the Board—in order of seniority of the regimental commandants:

BATTERY A.

Captain Arthur S. Fowler; First Lieutenant James T. Reynolds, First Lieutenant Edward M. Gillette; Second Lieutenant James H. Barker, Second Lieutenant Nelson S. Leete.

FIRST REGIMENT.

Major Thomas M. Smith; Captain James B. Houston, I. R. P.; First Lieutenant Wallace T. Fenn, Paymaster; Captain Samuel O. Prentice, Captain Thomas F. Flanigan; First Lieutenant James H. Jarman, First Lieutenant William E. Allen, First Lieutenant Patrick H. Smith; Second Lieutenant Charles L. Bissell, Second Lieutenant De Witt P. Preston, Second Lieutenant John McBriarty, Second Lieutenant He Avery, Second Lieutenant John J. Leahy.

SECOND REGIMENT.

First Lieutenant Francis J. Duffy, Quartermaster; Captain John Garrity, Captain John Gutt, Captain Alfred J. Wolff, Captain Frank L. Blakely; First Lieutenant Charles B. Bowen, First Lieutenant Timothy F. Callahan, First Lieutenant Leman H. Bates, First Lieutenant John Widman, Jr., First Lieutenant Lucien F. Burpee, First Lieutenant Kyron J. Farrell; Second Lieutenant Michael Creed, Second Lieutenant Charles C. Ford, Second Lieutenant Charles G. Miller, Second Lieutenant Frank M. Bronson, Second Lieutenant William H. Sears, Second Lieutenant Michael Cooney.

THIRD REGIMENT.

Colonel George Haven, Lieutenant-Colonel Michael Twomey, Major William F. Bidwell, First Lieutenant Thomas H. Allen, Signal Officer; First Lieutenant Charles F. Starr, Quartermaster; Major Leonard B. Almy, Surgeon; Captain J. Emerson Harris, I. R. P.; First Lieutenant Henry L. Hammond, Assistant Surgeon; Captain Paul L. Gibson, Captain Patrick Fitzpatrick, Captain Charles H. Gilbert, Captain Daniel Keleher; First Lieutenant John Armstrong, First Lieutenant Thomas B. Linton, First Lieutenant Cornelius Bransfield; Second Lieutenant John H. Morrison, Second Lieutenant Kent A. Darbie, Second Lieutenant Herbert N. Small, Second Lieutenant Edmund Keleher.

FOURTH REGIMENT.

First Lieutenant Charles S. Murray, Assistant Surgeon; Captain Russell Frost, Captain Eugene Morehouse; First Lieutenant Cornelius Elwood, First Lieutenant George L. Stevens, First Lieutenant Stiles Judson, Jr.; Second Lieutenant Edwin F. Hall, Second Lieutenant James H. Platt, Second Lieutenant John A. Haldin, Second Lieutenant Henry Matheis.

VI. Commandants of Regiments will direct all medical officers and hospital stewards attached to their commands, who have been appointed or enlisted since Sept. 1, 1885, to report to the Surgeon-General at his quarters at Camp Smith, Tuesday, August 24 inst., at 7.30 o'clock P. M., for special examination under the provisions of Par. 1427, Regulations C. N. G., 1884.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 13. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 17, 1886.

I. In compliance with the request of the Commander-in-Chief to the Hon. Secretary of War, U. S., the following officers U. S. Army have been detailed by the Adjutant-General, U. S. A., for duty at Camp Smith, Niantic, during the week of Camp, 23-28 inst. :

First Lieutenant Charles A. L. Totten, 4th Artillery, for the purpose of inspecting the troops under such instructions as he may receive from the Adjutant-General of the Army.

First Lieutenant Samuel R. Jones, 4th Artillery, for the purpose of instruction and practice of the troops in heavy artillery drill at the siege-gun and mortar battery, now in course of erection on the camp-ground.

II. Brigadier-General Charles P. Graham, commanding Brigade, C. N. G., will give every opportunity to Lieutenant Totten to witness the drills, duties, and ceremonies during the encampment, and to make any inspections he may desire.

III. General Graham will make such details from his command for instruction in heavy artillery drill under Lieutenant Jones as may be deemed necessary, and will make requisition for any blank ammunition required for practice with the siege-guns and mortars.

IV. The presence in camp of officers of the Regular Army, officially detailed to inspect, instruct, and report, will subject the C. N. G. to an intelligent and impartial criticism. That criticism would not have been invited had not the Adjutant-General a firm confidence that it would redound to the credit of the force, and that he might rely upon the prompt performance, by each officer and man, of every duty required in camp.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 14. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 21, 1886.

I. Changes as follows in the commissioned officers of the Connecticut National Guard, have occurred since June 26, 1886:

RESIGNED AND DISCHARGED.

FIRST REGIMENT.

First Lieutenant Thomas W. Gleason, Signal Officer, August 10, 1886.

SECOND REGIMENT.

First Lieutenant Thomas F. Meara, Company G, July 21, 1886.

Second Lieutenant Arthur L. Howard, Second Machine-Gun Platoon, July 1, 1886.

THIRD REGIMENT.

Colonel William H. Tubbs, June 30, 1886.

Lieutenant-Colonel William H. Bentley, June 30, 1886.

Major John G. Stanton, Surgeon, July 19, 1886.

Captain Thomas O. Thompson, I. R. P., July 19, 1886.

First Lieutenant George W. Phillips, Quartermaster, June 30, 1886.

First Lieutenant Joseph W. Gilbert, Paymaster, June 30, 1886.

First Lieutenant William B. Young, Assistant Surgeon, June 30, 1886.

First Lieutenant Charles S. Ebberts, Company C, June 28, 1886.

FOURTH REGIMENT.

Captain Bruce H. Weller, Company K, July 21, 1886.

Second Lieutenant James H. Platt, Company D, August 16, 1886.

PROMOTED AND APPOINTED.

FIRST REGIMENT.

Private Morris Penrose, Company K, of Hartford, appointed Signal Officer, with rank of First Lieutenant, from August 11, 1886, *vice* Gleason, resigned.

Sergeant Henry Avery, Company H, of Hartford, appointed Second Lieutenant commanding First Machine-Gun Platoon, with rank from June 14, 1886, *vice* Tateum, resigned.

First Lieutenant Thomas F. Flanigan, of Hartford, appointed Captain Company B, with rank from June 26, 1886, *vice* Moran, resigned.

Second Lieutenant Patrick H. Smith, of Hartford, appointed First Lieutenant Company B, with rank from June 26, 1886, *vice* Flanigan, promoted.

First Sergeant John J. Leahy, of Hartford, appointed Second Lieutenant Company B, with rank from June 26, 1886, *vice* Smith, promoted.

SECOND REGIMENT.

Quartermaster-Sergeant Francis J. Duffy, of New Haven, appointed Quartermaster, with rank of First Lieutenant from June 16, 1886, *vice* Hill, resigned.

First Lieutenant Frank L. Blakely, of Waterbury, appointed Captain Company A, with rank from June 21, 1886, *vice* Woolworth, resigned.

Second Lieutenant Lucien F. Burpee, of Waterbury, appointed First Lieutenant Company A, with rank from June 21, 1886, *vice* Blakely, promoted.

Frank M. Bronson, of Waterbury, appointed Second Lieutenant Company A, with rank from June 21, 1886, *vice* Burpee, promoted.

Second Lieutenant Alfred J. Wolff, of Waterbury, appointed Captain Company G, with rank from June 21, 1886, *vice* Bannon, resigned.

Sergeant Kyron J. Farrell, of Waterbury, appointed Second Lieutenant Company G, with rank from June 21, 1886, *vice* Wolff, promoted.

Second Lieutenant Kyron J. Farrell, of Waterbury, appointed First Lieutenant Company G, with rank from July 27, 1886, *vice* Meara, resigned.

Corporal Michael Cooney, of Waterbury, appointed Second Lieutenant Company G, with rank from July 27, 1886, *vice* Farrell, promoted.

William H. Sears, of New Haven, appointed Second Lieutenant commanding Second Machine-Gun Platoon, with rank from July 21, 1886, *vice* Howard, resigned.

THIRD REGIMENT.

Major George Haven, of New London, appointed Colonel, with rank from July 12, 1886, *vice* Tubbs, resigned.

Captain Michael Twomey, Company B, of Stonington, appointed Lieutenant-Colonel, with rank from July 12, 1886, *vice* Bentley, resigned.

Captain William F. Bidwell, Company C, of Norwich, appointed Major, with rank from July 12, 1886, *vice* Haven, promoted.

Quartermaster-Sergeant Charles F. Starr, of New London, appointed Quartermaster, with rank of First Lieutenant from July 22, 1886, *vice* Phillips, resigned.

Corporal Irving E. Hill, Company C, of Norwich, appointed Paymaster, with rank from August 5, 1886, *vice* Gilbert, resigned.

Leonard B. Almy, of Norwich, appointed Surgeon, with rank of Major from July 22, 1886, *vice* Stanton, resigned.

First Lieutenant J. Emerson Harris, Company I, of New London, appointed Inspector of Rifle Practice, with rank of Captain from July 22, 1886, *vice* Thompson, resigned.

Henry L. Hammond, of Killingly, appointed Assistant Surgeon, with rank of First Lieutenant from July 23, 1886, *vice* Young, resigned.

Second Lieutenant Charles H. Gilbert, of Norwich, appointed First Lieutenant Company C, with rank from July 6, 1886, *vice* Ebberts, resigned.

First Sergeant Thomas B. Linton, of Norwich, appointed Second Lieutenant Company C, with rank from July 6, 1886, *vice* Gilbert, promoted.

First Lieutenant Daniel Keleher, of Stonington, appointed Captain Company B, with rank from July 28, 1886, *vice* Twomey, promoted.

Second Lieutenant Cornelius Bransfield, of Stonington, appointed First Lieutenant Company B, with rank from July 28, 1886, *vice* Keleher, promoted.

Sergeant Edmund Keleher, of Stonington, appointed Second Lieutenant Company B, with rank from July 28, 1886, *vice* Bransfield, promoted.

First Lieutenant Charles H. Gilbert, of Norwich, appointed Captain Company C, with rank from July 27, 1886, *vice* Bidwell, promoted.

Second Lieutenant Thomas B. Linton, of Norwich, appointed First Lieutenant Company C, with rank from July 27, 1886, *vice* Gilbert, promoted.

Sergeant Herbert N. Small, of Norwich, appointed Second Lieutenant Company C, with rank from July 27, 1886, *vice* Linton, promoted.

Second Lieutenant Frank P. Goff, of New London, appointed First Lieutenant Company I, with rank from August 10, 1886, *vice* Harris, promoted.

Corporal Samuel Prince, of New London, appointed Second Lieutenant Company I, with rank from August 10, 1886, *vice* Goff, promoted.

FOURTH REGIMENT.

First Lieutenant Eugene Morehouse, of Stratford, appointed Captain Company K, with rank from July 27, 1886, *vice* Weller, resigned.

First Sergeant Stiles Judson, Jr., of Stratford, appointed First Lieutenant Company K, with rank from July 27, 1886, *vice* Morehouse, promoted.

Musician Henry Matheis, of Norwalk, appointed Second Lieutenant Company F, with rank from June 11, 1886, *vice* Bennett, resigned.

COMMISSIONS REVOKED AND DISCHARGED.

THIRD REGIMENT.

Captain John H. Hoxie, First Lieutenant Elias B. Jones, Second Lieutenant James McDonough, Company A; August 20, 1886.

II. In accordance with the Regulations C. N. G., the following-named members of the Connecticut National Guard are hereby announced as deserters; for which offence they have been dishonorably discharged from the military service of the State, in accordance with sentences of Field Officers' Courts-Martial:

THIRD REGIMENT.

Privates Elmer E. Burrows, Fred W. Byington, James Keegan, Company D.

FOURTH REGIMENT.

Private Frederick W. Smith, Company F.

By order of the Commander-in-Chief,
STEPHEN R. SMITH,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, } ADJUTANT-GENERAL'S OFFICE,
No. 15. } CAMP SMITH, NIAHTIC, August 28, 1886.

The number of officers and men of the Brigade who have been present during this encampment is large beyond precedent.

They have been prompt, cheerful, and faithful in the performance of their duties.

They have visibly improved in discipline from day to day.

A cordial and kindly feeling among their different organizations towards each other has been especially noticeable.

The Commander-in-Chief expresses his great satisfaction with them, and his belief that the National Guard is to-day worthy (as he trusts that it will always continue to be worthy) of the respect, the confidence, and the liberal support of the people of Connecticut.

By order of the Commander-in-Chief,
STEPHEN R. SMITH,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, } ADJUTANT-GENERAL'S OFFICE,
No. 16. } HARTFORD, October 8, 1886.

I. The following-named officers of the Connecticut National Guard being reported by the Examining Board appointed and convened by G. O. No. 12, c. s., as having passed a satisfactory examination in military tactics and duties, will be commissioned with rank and date as given herewith:

BATTERY A.

Captain Arthur S. Fowler,	Guilford,	Mar. 11, 1886.
First Lieutenant James T. Reynolds,	Second Platoon, Branford,	Dec. 17, 1885.
First Lieutenant Edward M. Gillette,	First Platoon, Guilford,	April 5, 1886.
Second Lieutenant James H. Barker,	Second Platoon, Branford,	Jan. 7, 1886.
Second Lieutenant Nelson S. Leete,	First Platoon, Guilford,	April 5, 1886.

FIRST REGIMENT.

Major Thomas M. Smith,	Hartford,	April 8, 1886.
Captain James B. Houston, Inspector of Rifle Practice,	Enfield,	April 22, 1886.
First Lieutenant Wallace T. Fenn, Paymaster,	Wethersfield,	April 22, 1886.
First Lieutenant Morris Penrose, Signal Officer,	Hartford,	Aug. 11, 1886.
Captain Samuel O. Prentice,	Co. K, Hartford,	April 29, 1886.
Captain Thomas F. Flanigan,	Co. B, Hartford,	June 26, 1886.
First Lieutenant James H. Jarman,	Co. K, Hartford,	April 29, 1886.
First Lieutenant William E. Allen,	Co. D, New Britain,	May 18, 1886.
First Lieutenant Patrick H. Smith,	Co. B, Hartford,	June 26, 1886.
Second Lieutenant Charles L. Bissell,	Co. G, Manchester,	Mar. 31, 1886.
Second Lieutenant De Witt P. Preston,	Co. K, Hartford,	April 29, 1886.
Second Lieutenant Henry Avery,	First Machine-Gun Platoon, Hartford,	June 14, 1886.
Second Lieutenant John J. Leahy,	Co. B, Hartford,	June 26, 1886.

SECOND REGIMENT.

First Lieutenant Francis J. Duffy, Quartermaster,	New Haven,	June 16, 1886.
Captain John Garrity,	Co. C, New Haven,	Feb. 4, 1886.
Captain John Gutt,	Co. B, New Haven,	May 24, 1886.
Captain Alfred J. Wolff,	Co. G, Waterbury,	June 21, 1886.
Captain Frank L. Blakely,	Co. A, Waterbury,	June 21, 1886.
First Lieutenant Charles B. Bowen,	Co. I, Meriden,	July 30, 1885.
First Lieutenant Frank L. Blakely,	Co. A, Waterbury,	Jan. 28, 1886.
First Lieutenant Timothy F. Callahan,	Co. C, New Haven,	Feb. 4, 1886.
First Lieutenant Leman H. Bates,	Co. F, New Haven,	Mar. 11, 1886.
First Lieutenant John Widman, Jr.,	Co. B, New Haven,	May 24, 1886.
First Lieutenant Lucien F. Burpee,	Co. A, Waterbury,	June 21, 1886.
First Lieutenant Kyron J. Farrell,	Co. G, Waterbury,	July 27, 1886.
Second Lieutenant Frank L. Blakely,	Co. A, Waterbury,	Oct. 19, 1885.
Second Lieutenant Michael Creed,	Co. C, New Haven,	Feb. 4, 1886.
Second Lieutenant Lucien F. Burpee,	Co. A, Waterbury,	Mar. 22, 1886.
Second Lieutenant Charles G. Miller,	Co. B, New Haven,	May 24, 1886.
Second Lieutenant Kyron J. Farrell,	Co. G, Waterbury,	June 21, 1886.
Second Lieutenant William H. Sears,	Second Machine-Gun Platoon, New Haven,	July 21, 1886.

THIRD REGIMENT.

Colonel George Haven,	New London,	July 12, 1886.
Lieutenant-Colonel Michael Twomey,	Stonington,	July 12, 1886.
Major William F. Bidwell,	Norwich,	July 12, 1886.
First Lieutenant Thomas H. Allen, Signal Officer,	Sprague,	Aug. 11, 1885.
First Lieutenant Charles F. Starr, Quartermaster,	New London,	July 22, 1886.
Major Leonard B. Almy, Surgeon,	Norwich,	July 22, 1886.
Captain J. Emerson Harris, Inspector of Rifle Practice,	New London,	July 22, 1886.

First Lieutenant Henry L. Hammond, Assistant Surgeon,

	Killingly,	July 23, 1886.
Captain Paul L. Gibson,	Co. F, Killingly,	Dec. 29, 1885.
Captain Patrick Fitzpatrick,	Co. E, Windham,	May 17, 1886.
Captain Daniel Keleher,	Co. B, Stonington,	July 28, 1886.
First Lieutenant John Armstrong,	Co. F, Killingly,	June 3, 1886.
First Lieutenant Thomas B. Linton,	Co. C, Norwich,	July 27, 1886.
First Lieutenant Cornelius Bransfield,	Co. B, Stonington,	July 28, 1886.
Second Lieutenant John Armstrong,	Co. F, Killingly,	April 1, 1886.
Second Lieutenant John H. Morrison,	Co. E, Windham,	May 17, 1886.
Second Lieutenant Kent A. Darbie,	Co. F, Killingly,	June 3, 1886.
Second Lieutenant Thomas B. Linton,	Co. C, Norwich,	July 6, 1886.
Second Lieutenant Herbert N. Small,	Co. C, Norwich,	July 27, 1886.
Second Lieutenant Edmund Keleher,	Co. B, Stonington,	July 28, 1886.

FOURTH REGIMENT.

First Lieutenant Charles S. Murray, Assistant Surgeon,

	Norwalk,	Aug. 16, 1885.
Captain Russell Frost,	Co. D, Norwalk,	Feb. 17, 1886.
Captain Eugene Morehouse,	Co. K, Stratford,	July 27, 1886.
First Lieutenant Russell Frost,	Co. D, Norwalk,	Jan. 12, 1886.
First Lieutenant Cornelius Elwood,	Co. D, Norwalk,	Feb. 17, 1886.
First Lieutenant George L. Stevens,	Co. G, Danbury,	May 29, 1886.
First Lieutenant Stiles Judson, Jr.,	Co. K, Stratford,	July 27, 1886.
Second Lieutenant Edwin F. Hall,		
	Fourth Machine-Gun Platoon, Stratford,	Jan. 25, 1886.
Second Lieutenant Henry Matheis,	Co. F, Norwalk,	June 11, 1886.

II. The following-named officers of the Connecticut National Guard having failed to pass a satisfactory examination in military tactics and duties, as required by law and regulations, their appointments are hereby revoked, and they are discharged from the military service of the State, to date October 1, 1886.

Captain Charles H. Gilbert,	Co. C, Third Regiment.
Second Lieutenant Michael Cooney,	Co. G, Second Regiment.
Second Lieutenant John A. Haldin,	Co. G, Fourth Regiment.

III. Second Lieutenants John McBriarty, First Regiment, Charles C. Ford, Frank M. Bronson, Second Regiment, C. N. G., who failed to pass a satisfactory examination before the Examining Board, have been ordered for re-examination, in accordance with the unanimous recommendation of the Board.

IV. Commanding officers of companies in which a vacancy is created by this order are hereby ordered to warn the members of their respective commands to appear at their armory to make nomination by ballot to fill the vacancy, and will make return of the nomination so made to this office without delay, transmitting therewith a copy of their orders issued in compliance herewith.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 17. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, October 19, 1886.

I. In accordance with the provisions of Section 9, Chapter I, Title X of the General Statutes, the following persons are hereby appointed Post-Surgeons, to determine exemptions from military duty by the standard of disability prescribed by the Surgeon-General.

Hartford County—William W. Knight, Hartford; George Clary, New Britain; Edward F. Parsons, Enfield; I. P. Fiske, Southington; Henry C. Bunce, Glastonbury; George F. Lewis, Canton; Charles W. Wooster, Tariffville; Noah W. Holcomb, Simsbury; Henry E. Way, Bristol; Charles Carrington, Farmington; S. R. Burnap, Windsor Locks; Julian N. Parker, Manchester.

New Haven County—C. Purdy Lindsley, New Haven; Alfred North, Waterbury; N. Nickerson, Meriden; George L. Beardsley, Derby; William H. Andrews, Milford; G. P. Reynolds, Guilford; J. D. McGaughey, Wallingford; Walter H. Zink, Branford; W. C. Williams, Cheshire; Austin E. May, Naugatuck.

Middlesex County—Francis D. Edgerton, Middletown; John H. Grannis, Old Saybrook; Miner C. Hazen, Haddam; Charles A. Fox, East Haddam; Charles H. Hubbard, Essex; Edwin Bidwell, Saybrook; Herbert Reynolds, Clinton.

New London County—Francis N. Braman, New London; S. L. Sprague, Norwich; E. Frank Coates, Stonington; Seth L. Chase, Colchester; George W. Harris, Old Lyme; William Soule, Griswold; Edwin H. Knowles, North Stonington.

Windham County—William A. Lewis, Plainfield; John B. Kent, Putnam; Charles J. Fox, Windham; Rienzi Robinson, Killingly; Lowell Holbrook, Thompson.

Tolland County—S. G. Risley, Vernon; C. B. Newton, Stafford; Henry S. Dean, Coventry; Frederick Johnson, Mansfield.

Fairfield County—Charles C. Godfrey, Bridgeport; William C. Burke, Jr., Norwalk; Abraham T. Clason, Danbury; Edward P. Lyon, Bethel; Henry Hungerford, Stamford; William C. Wile, Newtown; Sylvester Mead, Greenwich; William S. Todd, Ridgefield; William G. Brownson, New Canaan; Frederick Powers, Westport; William H. Donaldson, Fairfield.

Litchfield County—C. O. Belden, Litchfield; William Bissell, Salisbury; James Hine, New Milford; James Welch, Winchester; Leander Y. Ketcham, Woodbury; Edward Sanford, Cornwall; William Woodruff, Thomaston; William L. Platt, Torrington.

II. All persons between the ages of 18 and 45 years, desiring exemption from military duty and commutation tax, by reason of mental or physical disability, must report to one of the Post-Surgeons for examination, and if found exempt will be furnished with a Certificate of Exemption, to be filed by them with the Selectmen of the Town in which they are liable to enrollment. Those who were exempted by Post-Surgeons in any year since 1878, and the disability classed as *permanent*, will not be required to be examined again, unless by order of the Surgeon-General.

Persons who neglect to file their Certificate of Exemption with the Selectmen before the first day of February next will be debarred from exemption for the year.

III. Post-Surgeons will make exemptions strictly in accordance with the orders of the Surgeon-General, and on the 1st of February next will report to him the names of all exempted by them, giving town and disability, and the names of all examined and not exempted. The fee for examination will be paid on approval of this office upon the report made to the Surgeon-General.

Blanks for certificates of Exemption and Reports to Surgeon-General will be supplied to Post-Surgeons from this office.

By order of the Commander-in-Chief.

STEPHEN R. SMITH,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 18. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, October 30, 1886.

I. By direction of the Commander-in-Chief, the following is hereby adopted and published as a bill of dress for the National Guard, and will in future be referred to as article XXX, Regulations Connecticut National Guard, with consecutive paragraphs, as numbered. Any portion of Section 5, Article VIII, Regulations C. N. G., 1884 (pp. 92-100), conflicting herewith, is hereby revoked:

REGULATIONS C. N. G., 1884.

ARTICLE XXX.

UNIFORM.

OFFICERS.

COATS.

Full Dress for Officers.

2033. All officers shall wear a double-breasted *frock* coat of dark-blue cloth, the skirt to extend from one-half to three-fourths the distance from the hip-joint to the bend of the knee.

2034. *For the Brigadier-General* — Two rows of buttons on the breast, eight in each row; placed by pairs; the distance between each row five and one-half inches at top and three and one-half inches at bottom; stand-up collar, not less than one nor more than two inches in height, to hook in front at the bottom and slope thence up and backward at an angle of thirty degrees on each side, corners rounded; cuffs three inches deep, to go around the sleeves parallel with the lower edge, and with three small buttons at the under seam; pockets in the folds of the skirts, with two buttons at the hip and one at the lower end of each side-edge, making four buttons on the back and skirt of the coat; collar and cuffs to be of dark-blue velvet; lining of the coat black.

2035. *For a Colonel, Lieutenant-Colonel, and Major.*—The same as for the Brigadier-General, except that there will be nine buttons in each row, on the breast, placed at equal distances; collar and cuffs of the same color and material as the coat.

2036. *For a Captain, First Lieutenant, and Second Lieutenant.*—The same as for a Colonel, except that there will be seven buttons in each row, on the breast.

2037. This coat shall be worn on all dress occasions, such as reviews, inspections, dress parades, guards, courts-martial, courts of inquiry, boards of inspection, boards of survey, military boards of examiners, and special boards. It will be habitually worn at battalion drills, except in hot weather, or when otherwise directed by the commanding officer.

Undress for Officers.

2038. *For marches, squad and company drills, and other drills, when authorized by the commanding officer, and for fatigue duty and ordinary wear.*—A sack coat of dark blue cloth; falling collar; single-breasted, with five buttons in front and three small buttons on the under seam of the cuff of each sleeve, same as those worn on the dress coat. The skirt to extend from one-third to two-thirds the distance from the hip joint to the bend of the knee. The shoulder-straps will always be worn with this coat.

2039. *For a Chaplain.*—Plain black frock coat, with standing collar; one row of nine black buttons on the breast, with "herring-bone" of black braid around the buttons and button-holes. The only coat required to be worn by Chaplains is that as here described.

BUTTONS.

2040. *For all Officers.*—Gilt, convex; device, the State shield, with the word "CONNECTICUT" above and the motto "*Qui transtulit sustinet*" below the shield; large size, seven-eighths of an inch in exterior diameter; small size, nine-sixteenths of an inch.

CRAVATS.

2041. *For all Officers.*—Black or white; the tie not to be visible at the opening of the collar.

VESTS.

2042. Officers when not on duty are permitted to wear a buff, white, or blue vest, with the small button prescribed for them.

TROUSERS.

2043. *For the Brigadier-General and Officers of the Brigade Staff.*—Dark-blue cloth, plain, without stripe, welt, or cord.

2044. *For Regimental Signal Officers.*—Sky-blue cloth, with stripe one and one-half inches wide, welted at the edges; color of stripe, orange.

2045. *For all Officers of Light Artillery, and Infantry except Signal Officers and Chaplains.*—Sky-blue cloth, same shade of color as prescribed for enlisted men, with stripe one and one-half inches wide, welted at the edges; color, that of facings of their respective arms.

2046. *For Chaplains.*—Plain black, with black cord on the outer seam.

2047. Whenever white trousers are worn by enlisted men, the officers must in like manner wear them.

HAT.

2048. *For Chaplains.*—Of black, soft felt, with stiff brim; a gold embroidered wreath of oak-leaves encircling the number of regiment in silver in front of hat. Gilt cord around hat.

HAT OR HELMET (FULL DRESS).

2049. *For the Brigadier-General and Officers of the Brigade Staff.*—Chapeau according to pattern, to be worn with the front peak turned slightly to the left, showing the gilt ornaments upon the right side.

2050. *Helmets for Field Officers.*—According to U. S. Pattern. Body: of cork or other suitable material, covered with black cloth. Trimmings: cords and tassels, top piece and plume-socket, chain chin-strap and hooks; eagle with motto, crossed cannon for artillery and crossed rifles for infantry, all gilt, with the number of the regiment on the shield in white; plume of buffalo hair, white for Infantry, and scarlet for Artillery.

2051. *Helmets for other Mounted Officers of Infantry and Light Artillery.*—Same as above, except that for Regimental Signal Officers the color of plume shall be orange. Battery officers of Light Artillery to have letter of battery on the shield.

2052. *Helmets for other Officers of Infantry.*—Same as above, except that the trimmings are as follows: Top piece, spike and base, chain chin-strap, with hooks and side buttons, eagle with motto and crossed rifles, all gilt, with the number of the regiment on the shield in white.

2053. *Officers' Summer Helmets.*—Body, of cork, as per U. S. pattern, covered with white facing cloth; top-piece, spike and base, chain chin-strap, and hooks, all gilt.

2054. The helmet cords will be attached to the left side of the helmet and come down to the left shoulder, where they are held together by a slide; one cord then passes to the front and the other to the rear of the neck; crossing upon the right shoulder and passing separately around to the front and rear of the right arm, where they are again united and held together by a slide under the arm; the united cords then cross the breast and are looped up to the upper button on the left side of the coat.

PLUMES FOR OFFICERS.

2055. *For the Brigadier-General and Officers of the Brigade Staff.*—Two black ostrich feathers.

FORAGE CAP.

2056. *For the Brigadier-General.*—Of dark-blue cloth, chasseur pattern, with black velvet band and badge in front, and a cord cap-strap of gold on silver, according to pattern for infantry.

2057. *For Officers of the Brigade Staff.*—Same as for the Brigadier-General, except without black velvet band.

2058. *For all other Commissioned Officers.*—Of dark-blue cloth, chasseur pattern, with badge of regiment or battery in front, top of badge to be even with top of cap; a cord cap-strap of gold on silver, according to U. S. pattern.

FORAGE CAP BADGES.

2059. *For the Brigadier-General and Officers of the Brigade Staff, except Assistant Adjutant-General, and Engineer and Signal Officer.*—A gold embroidered wreath on dark-blue cloth ground, encircling the letters "C. N. G." in silver, old English characters.

2060. *For the Assistant Adjutant-General of Brigade.*—A gold embroidered wreath on dark-blue cloth ground, same as for the Brigadier-General, encircling a solid silver shield bearing thirteen stars, according to U. S. pattern.

2061. *For Brigade Engineer and Signal Officer.*—A gold embroidered wreath of laurel and palm encircling a silver turreted castle, on dark-blue cloth ground.

2062. *For Regimental Signal Officers.*—A gold embroidered wreath of oak-leaves, on dark-blue cloth ground, encircling two crossed signal flags and a burning torch, with the number of regiment.

2063. *For Officers of Light Artillery.*—Two gold embroidered cannons, crossed, on dark-blue cloth ground, with the letter of the battery or number of regiment in silver, at the intersection of the crossed cannons.

2064. *For Officers of Infantry other than Signal Officers.*—Two gold embroidered rifles without bayonets, barrels upwards, on dark-blue cloth ground, with the number of the regiment in silver in the upper angle.

EPAULETTES.

2065. *For the Brigadier-General.*—Of gold, with solid crescent; device, one silver embroidered star, with five rays, one and one-half inches in diameter, placed in the center of the crescent.

SHOULDER-KNOTS.

2066. *For the Assistant Adjutant-General of Brigade, Brigade Inspector, and Aides-de-Camp.*—Of gold cord; Russian pattern, on dark-blue cloth ground; insignia of rank embroidered on the cloth ground, according to pattern; an aiguillette of gold cord to be worn with the right shoulder-knot, according to U. S. pattern.

The aiguillette, instead of being permanently attached to the shoulder knot, may be made separate, so as to be attached to the coat underneath the knot by means of a strap or tongue passing through the lower fastening of the knot.

2067. *For other Officers of the Brigade Staff, except Engineer and Signal Officer.*—Same as above, without aiguillette.

2068. *For Brigade Engineer and Signal Officer.*—Same as above, without aiguillette, except cloth ground to be of orange color.

2069. *For Regimental Adjutants.*—Same as above, except cloth ground, which shall be of same color as facings of their respective arm; insignia of rank and number of regiment embroidered on the cloth ground.

2070. *For Regimental Signal Officers.*—Same as above described (except cloth ground, which shall be orange color), without the aiguillette.

2071. *For other Officers of Light Artillery and Infantry.*—Of the same pattern as described above, but on cloth of the same color as the facings of their arm, with insignia of rank and number of regiment or letter of battery embroidered on the cloth ground, according to pattern.

2072. Whenever the full dress coat is worn by officers, the prescribed epaulettes or shoulder-knots will be attached. Letters to be embroidered on shoulder-knots in old English.

Devices on Shoulder-Knots.

2073. *Assistant Adjutant-General of the Brigade.*—A solid shield of silver bearing thirteen stars, according to U. S. pattern.

2074. *Brigade Inspector.*—*J. D.*

2075. *Brigade and Regimental Quartermasters.*—*Q. D.*

2076. *Inspectors of Rifle Practice.*—*J. R. P.*

2077. *Brigade Commissary.*—*S. D.*

2078. *All Medical Officers.*—*M. D.*

2079. *Regimental Paymasters.*—*P. D.*

2080. *Brigade Engineer and Signal Officer.*—A silver turreted castle of metal, one and four-tenths inches in width by nine-tenths of an inch in height.

2081. *Regimental Signal Officers.*—Two crossed signal flags and a burning torch.

The above devices to be also worn on shoulder-strap.

Insignia of Rank on Shoulder-Knots.

2082. *For a Colonel.*—A silver embroidered eagle at the center of the pad.

2083. *For a Lieutenant-Colonel.*—Two silver embroidered leaves, one at each end of pad.

2084. *For a Major.*—Two gold embroidered leaves, one at each end of pad.

2085. *For a Captain.*—Two silver embroidered bars at each end of pad.

2086. *For a First Lieutenant.*—One silver embroidered bar at each end of pad.

2087. *For a Second Lieutenant.*—Plain.

The above insignia is to be the same on shoulder-strap.

SHOULDER-STRAPS.

2088. *For the Brigadier-General.*—Dark-blue cloth, one and three-eighths inches wide by four inches long, bordered with an embroidery of gold one-fourth of an inch wide; one silver embroidered star of five rays, the center of the star to be equi-distant from the outer edge of the embroidery on the ends of the strap.

2089. *For a Colonel.*—The same size as for the Brigadier General, and bordered in like manner with an embroidery of gold; a silver embroidered spread eagle on the center of the strap, two inches between the tips of the wings, having in the right talon an olive branch, and in the left a bundle of arrows; an escutcheon on the breast, as represented in the "Arms of the United States." Cloth of the strap as follows: for the Brigade Staff, dark blue; Light Artillery, scarlet; Infantry, white.

2090. *For a Lieutenant-Colonel.*—The same as for a colonel, according to arm, omitting the eagle, and introducing a silver embroidered leaf at each end, each leaf extending seven-eighths of an inch from the end border of the strap.

2091. *For a Major.*—The same as for a Colonel, according to arm, omitting the eagle, and introducing a gold embroidered leaf at each end, each leaf extending seven-eighths of an inch from the end border of the strap.

2092. *For a Captain.*—The same as for a Colonel, according to arm, omitting the eagle, and introducing at each end two silver embroidered bars of the same width as the border, placed parallel to the ends of the strap, at a distance between them and from the border equal to the width of the border.

2093. *For a First Lieutenant.*—The same as for a Colonel, according to arm, omitting the eagle, and introducing at each end one silver embroidered bar of the same width as the border, placed parallel to the ends of the strap, at a distance from the border equal to its width.

2094. *For a Second Lieutenant.*—The same as for a Colonel, according to arm, omitting the eagle.

2095. *For Regimental Signal Officers.*—Same as for First Lieutenant, except that color of cloth shall be orange.

2096. *For Chaplains.*—A shoulder-strap of black velvet, with a shepherd's crook of frosted silver on the center of the strap.

2097. Officers serving in the field may dispense with prominent marks likely to attract the attention of sharpshooters; but all officers must wear the prescribed shoulder-strap to indicate their rank.

2098. The shoulder-strap will be worn whenever the epaulette or shoulder-knot is dispensed with.

GLOVES.

2099. *For the Brigadier-General, and Officers of the Brigade Staff.*—Buff gauntlets or white gloves.

2100. *For Mounted Officers of Infantry, and for Officers of Light Artillery.*—Buff gauntlets or white gloves. *All other Officers*, white gloves.

SASH.

2101. *For the Brigadier-General.*—Buff silk net, with silk bullion fringe ends; sash to go twice around the waist, and to tie behind the left hip, pendant part not to extend more than eighteen inches below the tie.

SWORD-BELT.

2102. *For all Officers.* A waist belt, not less than one and one-half nor more than two inches wide, with slings of the same material as the belt, with a hook attached to the belt on which to hang the sword.

2103. The sword and sword-belt will be worn outside the coat.

2104. *For the Brigadier-General.*—Of red Russia leather, with three stripes of gold embroidery, as per pattern.

2105. *For all Field Officers.*—One broad stripe of gold lace on black, enameled leather, according to pattern.

2106. *For all Officers of the Brigade Staff, below the rank of Field Officers.*—Four stripes of gold, interwoven with black silk, lined with black enameled leather according to pattern.

2107. *For Staff and Company Officers of Light Artillery and Infantry.*—Four stripes of gold lace, interwoven with silk of the same color as the facings of their arms of service, and lined with black enameled leather.

2108. On undress duty, marches, and campaigns, officers will wear a plain black leather belt.

SWORD-BELT PLATE.

2109. *For all Officers.*—Gilt, rectangular, two inches wide, with a raised bright rim; a silver wreath of laurel encircling the "Arms of the United States"; eagle, shield, scroll, edge of cloud and rays bright. The motto "*E pluribus unum*" upon the scroll; stars also of silver, according to U. S. pattern.

SWORD AND SCABBARD.

2110. *For the Brigadier-General.*—Straight sword, gilt hilt, silver grip; full nickel scabbard.

2111. *For Officers of Light Artillery.*—Saber and scabbard according to U. S. pattern.

2112. *For all other Officers.*—The small, straight sword, according to U. S. pattern.

2113. The sword and sword-belt will be worn upon all occasions of duty, except stable and fatigue.

When in full dress, officers will wear the nickel sword-scabbard; in undress uniform, the bronzed scabbard.

SWORD-KNOT.

2114. *For the Brigadier-General.*—Gold cord, with acorn end.

2115. *For all other Officers.*—Gold lace strap, with gold bullion tassel.

LEGGINS.

2116. Leggins of material and pattern approved by the Commander-in Chief may be worn by officers when ordered by the commanding officer.

SPURS.

2117. *For all Mounted Officers.*—Yellow métal or gilt.

OVERCOAT.

2118. *For the Brigadier-General.*—Of dark-blue cloth, closing by means of four frog buttons of black silk and loops of black silk cord down the breast, and at the throat by a long loop "*à l'échelle*," without tassel or plate, on the left side, and a black silk frog button on the right; cord for the loops fifteen-hundredths of an inch in diameter; back: a single piece, slit up from the bottom from fifteen to seventeen inches, according to the height of the wearer, and closing at will by buttons, and button-holes cut in a concealed flap; collar of the same color and material as the coat, rounded at the edges, and to stand or fall; when standing, to be about five inches high; sleeves loose, of a single piece and round at the bottom, without cuff, or slit; lining woolen, and, with the facings, to correspond in color with the trimmings of the uniform; around the front and lower borders, the edges of the pockets, the edges of the sleeves, collar, and slit in the back, a flat braid of black silk one-half an inch wide; and around each frog button on the breast a knot two and one quarter inches in diameter, of black silk cord, seven-hundredths of an inch in diameter; cape of the same color and material as the coat, removable at the pleasure of the wearer, and reaching to the cuff of the coat sleeve when the arm is extended; coat to extend down the leg from six to eight inches below the knee, according to height. There will be on both sleeves, near the lower edge, a knot of flat black silk braid,

not exceeding one-eighth of an inch in width, and composed of five braids, double knot.

2119. *For all other Officers.*—A double breasted ulster of dark-blue cloth, lined with dark-blue flannel, closing by means of four frog buttons of black mohair and loops of black mohair cord down the breast, and at the throat by a long mohair loop on the left side, without tassel or plate, and a black mohair frog button on the right; cord for the loops fifteen-hundredths of an inch in diameter; around each frog button on the breast a knot two and one-quarter inches in diameter of black mohair cord seven-hundredths of an inch in diameter; the black slit up from the bottom from twenty to twenty-five inches, according to the height of the wearer, and closing at will by buttons, and button-holes placed in a concealed flap; bottom of the skirt nine to twelve inches from the ground; a rolling collar of the same material as the coat, and broad enough when turned up to protect the ears, having a collar-loop about four and a half inches long and one and one-half inches wide; two horizontal side pockets on the outside, just below the hip, covered with flaps to be worn inside or out; sleeves loose, without cuff or slit; back-straps to consist of two straps, each about eight inches long and two inches wide, let into the side seams of back of coat; left-hand strap to have a button-hole, and the right-hand strap to have two buttons about two inches apart; a vertical slit about six inches long at the side of the left hip, large enough to admit the front sling and hook of the sword-belt; a hood of the same material as the coat, lined with black Italian cloth or other suitable material, made to button around the neck, under the collar, and large enough to cover the head and cap, to be worn at night or in inclement weather. The belt will be worn under the coat, with the sword or saber outside, the rear sling passing out at the slit at the back.

The insignia of rank on the sleeves, of black flat mohair braid, one-eighth of an inch in width, as follows, viz.:

Colonel, five braids, single knot.

Lieutenant-Colonel, four braids, single knot.

Major, three braids, single knot.

Captain, two braids, single knot.

First Lieutenant, one braid, single knot.

Second Lieutenant, without braid.

Chaplain, without braid.

A cape, of the same color and material as the coat, lined with blue for the brigade staff, scarlet flannel for artillery, white flannel for infantry, and reaching to the tips of the fingers when the arm is extended, a rolling collar of black velvet, three inches broad, rounded at the edges and closing at the throat by a black mohair loop "*à l'échelle*" on the left side, without tassel or plate, and a black mohair frog button on the right, may be worn by *all* officers when not on duty with troops under arms.

HORSE FURNITURE.

2120. *Saddle-Cloth for the Brigadier-General.*—To be worn under the saddle; of dark-blue cloth, trimmed with two rows of gold lace, the outer row one inch and five-eighths wide, the inner row two inches and one-fourth; to be made full, so as to cover the horse's haunches and forehands, and to bear on each flank corner a gold embroidered spread eagle and one star.

2121. *Saddle-Cloth for Brigade Staff Officers.*—Dark-blue cloth, according to pattern, worn over the saddle-blanket or pad, and under the saddle, trimmed around with an edging of gold lace one inch wide.

2122. *For all other Mounted Officers.*—Dark-blue felt, according to pattern, worn under the saddle; number of the regiment or letter of battery in figures two inches in length, made of cloth of the same color as the trimming, on each flank corner, and trimmed around the edges with cloth one and one-half inches wide, color as follows:

Infantry, white.

Artillery, scarlet.

ENLISTED MEN.

COATS.

2123. *For Enlisted Men of Infantry, except Drum-Majors and Band Musicians.*—Single-breasted dark-blue basque, according to pattern deposited in the Quartermaster-General's Office, front of coat, bottom of collar, and flap of skirt behind, piped with white; collar not less than one inch nor more than one and one-half inches in height, faced with white cloth four inches in front on each side; the number of regiment or battalion in figures of gilt metal, three-fourths of an inch long, placed on the white facing one and three-fourths inches from the front, cut square to hook up close in front; skirt of coat on each side of opening behind to be faced with white cloth ornamented with six large buttons, as per pattern; shoulder-straps of cloth, the color of the coat, piped with white, let into the shoulder-seam, and to button on the shoulder one inch below the collar-seam with one small button; a waist-belt strap on each side three and one-quarter inches long, of same material and color as coat, piped with white, let into waist-seam, and to button over waist-belt with one small button. A white cloth slash five inches long ornamented with three small buttons on outside of each sleeve, the lower edge even with edge of cuff.

2124. *For Enlisted Men of Light Artillery.*—Same as for Infantry, excepting that it is shorter in the skirts; skirt slashed up each side; openings and bottom of skirt piped; letter of battery or number of regiment in gilt metal on facing of collar, according to pattern in the Quartermaster-General's Office; piping and facings scarlet color.

2125. Whenever the dress coat is worn by enlisted men it will invariably be buttoned up and hooked at the collar.

2126. *For General Wear, Drills, and on Field Service.*—A dark-blue cloth fatigue blouse, sleeves lined; shoulder-straps and one waist-belt strap, of same color and material as blouse (except shoulder-straps of light artillery, which will be red), each to button with one small button, according to pattern deposited in the Quartermaster-General's Office.

BUTTONS.

2127. *For all Enlisted Men.*—Same as for officers, according to standard in the Quartermaster-General's Office.

CHEVRONS.

2128. The rank of non-commissioned officers will be marked on the uniform dress coat and blouse by chevrons of cloth of the same color as the facing of the

uniform dress coat. The chevrons will be worn points down, above the elbow. The bars of the chevrons will be one-half inch wide, the upper and lower edges to be finished or bound with white silk stitching. The arms of the chevron-bars to be six to seven inches long, to be the arcs of a circle of about twenty-five inches radius, and to meet at an angle of about ninety-six degrees; distance between extreme outer ends about nine inches.

Chevrons of dark-blue color may be worn on overcoats of Infantry, scarlet on overcoats of Artillery. Chevrons on overcoats will be placed below the elbow with the point one-half inch above the cuff.

Rank will be indicated as follows:

2129. *For a Sergeant-Major.*—Three bars and an arc of three bars.

2130. *For a Regimental or Battalion Quartermaster-Sergeant.*—Three bars and a tie of three bars.

2131. *For a Drum-Major.*—Three bars and a bugle.

2132. *For a Commissary-Sergeant.*—Three bars, and a crescent (points front), one and one-fourth inches above the inner angle of chevrons.

2133. *For a Hospital Steward.* A half chevron of emerald-green cloth one and three-fourth inches wide, piped with yellow cloth, running obliquely downward from the outer to the inner seam of the sleeve, and at an angle of about thirty degrees with a horizontal, and in the center a "caduceus" two inches long, the head toward the outer seam of the sleeve.

2134. *For a First Sergeant.*—Three bars and a lozenge.

2135. *For a Company Quartermaster-Sergeant.*—Three bars and a tie of one bar.

2136. *For a Sergeant.*—Three bars.

2137. *For a Corporal.*—Two bars.

2138. *For a Guidon. (Battery, Light Artillery.)*—Three bars and a facsimile of the battery guidon one and one-fourth inches above the inner angle of chevron.

2139. *For a Veterinary Sergeant. (Battery, Light Artillery.)*—Three bars, and a mouth speculum one and one-fourth inches above the inner angle of chevron.

2140. *For a Trumpeter. (Battery, Light Artillery.)*—A bugle.

2141. *For Enlisted Men detailed for Signal Duty.*—According to pattern in the Office of the Quartermaster-General. Two embroidered signal flags, crossed, each three-fourths of an inch square, bearing in the center a square one-fourth of an inch—one flag white, with red inner square; the other red, with white inner square. Flags and squares bullion edged; staffs three inches long, with silver spears, made upon a piece of dark-blue cloth, three inches square, with the corners rounded off. This device to be worn by the non-commissioned officers above the chevrons; by privates of the first class on both arms; and by privates of the second class on the left arm only, in the same position as the chevron of non-commissioned officers.

2142. *To Indicate Service.*—All enlisted men who have served faithfully for one term of enlistment of five years may wear as a mark of distinction upon both sleeves of the *uniform dress coat*, below the elbow, a diagonal half chevron of cloth of same color as facings of the arm of service, one-half inch wide, stitched upon a piece of dark-blue cloth of the color of the uniform dress coat, and extending from seam to seam, the front end nearest the cuff, and one-half inch above the point of

the cuff; and an additional half chevron, as above described, for each five years of continuous service.

The chevrons to indicate service, if more than one, will be worn one above the other, one-fourth of an inch distance between them.

Service chevrons will not be worn on the overcoat or blouse.

CRAVATS.

2143. A black or white tie may be worn by enlisted men when on duty.

TROUSERS.

2144. *For Enlisted Men of all Arms, except Drum-Majors and Band Musicians.*—Sky-blue cloth; to be cut and made in accordance with standard samples in the Quartermaster-General's Office.

2145. In summer, commanding officers are authorized to sanction the use, on duty, of white trousers, to be bought by the soldier.

TROUSER-STRIPES.

2146. All enlisted men to wear a stripe one inch wide stitched on each side, of the color of the facings of the uniform dress coat; all stripes to be of cloth.

HELMET (FULL DRESS).

2147. *Helmets for Light Artillery.*—Body of cork covered with black cloth, as per pattern in the Office of the Quartermaster-General, with leather chin-strap. Gilt eagle, with motto, shield, and crossed cannon. Number of regiment or letter of battery in white metal (German silver) on shield. Gilt side buttons bearing device of arm of service. Top piece, plume-socket, and rings all gilt. Horsehair plumes, and cords and bands of scarlet color.

2148. *Helmets for Infantry.*—Of the same pattern and material as for Light Artillery, with chin-strap, gilt eagle with crossed rifles, and side buttons, as described. The top ornament to consist of a spike and base of gilt, as per pattern, instead of the plume socket. No rings.

2149. The helmet cords will be attached to the left side of the helmet and come down to the left shoulder, where they are held together by a slide; one cord then passes to the front and the other to the rear of the neck, crossing upon the right shoulder and passing separately around to the front and rear of the right arm, where they are again united and held together by a slide under the arm; the united cords then cross the breast and are looped up to the upper button on the left side of the coat.

FORAGE CAP.

2150. *For all Enlisted Men.*—Of plain blue cloth, same pattern as for officers, with letter of company or number of platoon of white metal, on top, and number of regiment or battalion or letter of battery of gilt metal, in front, over visor; leather chin strap to button on each side with one small button; according to patterns in the Quartermaster-General's Office.

FATIGUE HELMET.

2151. If authorized by commanding officers, enlisted men may wear in summer a fatigue helmet of white canvas (or cork body covered with white canvas), in

place of forage cap. The helmet to be of pattern and description approved by the Commander-in-Chief.

LEGGINS.

2152. Leggins, of material and pattern approved by the Commander-in-Chief may be worn by enlisted men, when ordered by the commanding officer.

GLOVES.

2153. *For all Enlisted Men.*— Of white Berlin.

GAUNTLETS.

2154. *For all Mounted Men.*— Good, serviceable leather gauntlets.

SPURS.

2155. *For all Mounted Men.*— Of yellow metal, plain surface.

OVERCOATS.

2156. *For all Enlisted Men.*— Of sky-blue cloth, single-breasted, lined, with cape, according to pattern in the Office of the Quartermaster-General. The linings of the capes will be scarlet.

REGIMENTAL BANDS.

257.1 Band Musicians and Drum Majors will wear the uniform as adopted and approved by the Military Clothing Board ; the uniform to remain the property of the State, as provided by law.

BRIGADE ORDERLIES.

2158. Brigade mounted orderlies will wear the same uniform as enlisted men of Light Artillery, except that color of facings and piping on uniform dress coat, chevrons, trouser stripes, plume, helmet cord and bands, will be yellow. Chevrons will be worn points up.

By order of the Commander-in-Chief.

STEPHEN R. SMITH,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 19. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 1, 1886.

I. The Quartermaster-General will call in all helmets, artillery helmet plumes, dress coats, non-commissioned officers' chevrons, and trousers issued by the State to commanding officers, for the use of the enlisted men Connecticut National Guard, with the exception of the Machine-Gun Platoons, as soon as practicable, and will issue upon approved requisition the new pattern helmets, artillery helmet plumes, uniform dress coats, non-commissioned officers' chevrons for uniform dress coats and blouses, and trousers as adopted according to Article XXX, Regulations C. N. G., as published, G. O. No. 18, c. s.

II. All commanding officers Connecticut National Guard will make immediate requisition for the articles enumerated above. The issue will be limited to a sufficient equipment for enlisted men, according to present membership.

III. The Quartermaster-General will change the shoulder-straps on blouses issued to the infantry organizations, C. N. G., for straps of the same color and material as the blouse; and may at his discretion permit commanding officers of Battery A, C. N. G., to retain in their possession the uniform trousers heretofore issued to them for the use of enlisted men, to be worn only when in fatigue uniform.

IV. Commanding officers Second Regiment C. N. G., will make and forward immediately requisitions for the new pattern forage caps as adopted, and will turn in to the Quartermaster-General all old-pattern forage caps immediately.

V. All officers Connecticut National Guard will equip themselves complete according to Article XXX, Regulations C. N. G., without delay, and the wearing by any officer or enlisted man of any portion of uniform not in conformity therewith after December 15, 1886, unless by special consent of the Commander-in-Chief, is hereby forbidden.

VI. The following-named officers of the Connecticut National Guard, being recommended by the Examining Board re-convened by S. O. No. 95, c. s., for commission, will be commissioned with rank and date as given herewith:

FIRST REGIMENT.

Second Lieutenant John McBriarty, Co. D, New Britain, May 18, 1886.

SECOND REGIMENT.

Second Lieutenant Charles C. Ford, Co. F, New Haven, Mar. 11, 1886.

Second Lieutenant Frank M. Bronson, Co. A, Waterbury, June 21, 1886.

VII. Commanding officers of regiments, the battalion and battery C. N. G., will immediately order weekly drills of each organization in their command to be resumed and continued during the drill season, November 1, inst., to May 31, 1887, inclusive. The particular attention of all commanding officers is called to G. O. No. 17, October 30, 1885, and previous orders therein referred to.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 20. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 6, 1886.

I. The time for qualification in the First class Rifle Practice under par. 1896, Sec. 1, Article XXVII, Regulations C. N. G., 1884 (as amended G. O. No. 8, 1885), of members of all organizations Connecticut National Guard, who have qualified in the Second Class Rifle Practice in accordance with the regulations, is hereby extended to November 15, instant.

II. The Quartermaster-General will call in all shakos, pompons, and epaulettes issued by the State for the use of the enlisted men, now in possession of commanding officers C. N. G., in addition to the articles enumerated in par. I, G. O. No. 19, c. s.

III. The following-named members of the C. N. G. are hereby announced as deserters, for which offense they have been dishonorably discharged from the military service of the State in accordance with sentences of Field Officers' Courts-Martial.

THIRD REGIMENT.

COMPANY C,—Privates George B. Fox, Magloire Rheaueme.

COMPANY D,—Privates Elmer E. Burrows, Fred. W. Byington, James Keegan.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
NO. 21. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 9, 1886.

I. In accordance with law, the Connecticut National Guard will be mustered and inspected between the 20th and 30th inst., inclusive, by the commanding officers of the Regiments, Battalion, and Battery, who will muster their respective commands in person, in the evening, at their several armories. Only those will be mustered as present who are in uniform and in the ranks. The same fine for non-attendance will be imposed as for absence from any legally warned parade or encampment. The muster will be conducted according to Art. XXIII, Regulations C. N. G., 1884.

II. Duplicate muster-rolls will be properly made out by commanding officers prior to date of muster, and all recruits will be examined by the Surgeon or Assistant Surgeon (or Post Surgeon in towns where a medical officer, C. N. G., is not readily accessible), and their enlistment papers forwarded through Headquarters to this office at or before muster. The rolls must account for every commissioned officer and enlisted man whose name appeared on the last muster-roll of the command, and all those who have since joined the organization, and will contain *all the information* provided for by the muster-blanks. Officers will pay particular attention to the Notes on back of muster-rolls. In preparing and filling out the rolls a strict conformance with the instructions will be observed, and commanding officers will carefully fill out the recapitulation and memoranda on rolls.

III. The muster will be preceded by a thorough inspection, as prescribed in Art. XVII, Regulations C. N. G. The mustering officer will report on muster-rolls the condition of records, and of the uniforms, arms, and equipments of officers and men, their discipline, instruction, and appearance; and will also give such other information as will be useful to the Commander-in-Chief.

IV. Mustering officers will assign dates for muster and inspection of the different organizations as soon as possible; they will carefully scrutinize the muster-rolls and see that they are properly filled as required, and forward them to this office

promptly after completion of muster, and will also require that the fine for non-attendance (as provided by law) is imposed and collected.

V. Application for the discharge of members prior to muster must be made by commanding officers immediately.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 22. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, December 18, 1886.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since August 20, 1886:

RESIGNED AND DISCHARGED.

FIRST REGIMENT.

First Lieutenant Freeman D. Twitchell, Company H, August 21, 1886.

SECOND REGIMENT.

Second Lieutenant Charles O. Norton, Company K, December 13, 1886.

THIRD REGIMENT.

Chaplain Edward W. Bacon, October 29, 1886.

PROMOTED AND APPOINTED.

FIRST REGIMENT.

Second Lieutenant Henry E. Chapman of Hartford, appointed First Lieutenant Company H, with rank from September 14, 1886, *vice* Twitchell, resigned.

First Sergeant Charles H. Patterson of Hartford, appointed Second Lieutenant Company H, with rank from September 14, 1886, *vice* Chapman, promoted.

SECOND REGIMENT.

Private Daniel E. Fitzpatrick of Waterbury, appointed Second Lieutenant Company G, with rank from October 19, 1886, *vice* Cooney, appointment revoked, and discharged.

THIRD REGIMENT.

Nicholas T. Allen of Groton, appointed Chaplain, to date from November 1, 1886, *vice* Bacon, resigned.

First Lieutenant Thomas B. Linton of Norwich, appointed Captain Company C, with rank from November 12, 1886, *vice* Gilbert, appointment revoked, and discharged.

FOURTH REGIMENT.

First Sergeant John McGraw of Norwalk, appointed Second Lieutenant Company D, with rank from September 3, 1886, *vice* Platt, resigned.

Sergeant William J. Phillips of Danbury, appointed Second Lieutenant Company G, with rank from October 8, 1886, *vice* Haldin, appointment revoked, and discharged.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of November, 1886, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Dec. 1, 8.00 A.M.	4	61	89.36	A.	Dec. 2, 2.00 P.M.	4	64	94.34
B.	Dec. 1, 5.00 P.M.	4	65	92.85	B.	Dec. 2, 10.00 A.M.	4	62	87.19
D.	Dec. 10, 10.30 A.M.	4	62	92.38	C.	Dec. 2, 7.00 P.M.	4	61	93.73
E.	Dec. 1, 11.00 A.M.	4	62	92.43	D.	Dec. 1, 10.00 A.M.	4	67	99.50
F.	Dec. 1, 8.00 A.M.	4	62	94.29	E.	Dec. 2, 2.00 P.M.	4	65	93.36
G.	Dec. 3, 11.00 A.M.	5	61	89.36	F.	Dec. 4, 10.00 A.M.	3	54	89.83
H.	Dec. 2, 11.00 A.M.	4	63	93.25	G.	Dec. 2, 10.00 A.M.	4	59	92.07
K.	Dec. 1, 1.30 P.M.	4	60	93.74	H.	Dec. 1, 2.00 P.M.	4	58	86.33
1st M.-G. Plat.					I.	Dec. 2, 3.30 P.M.	4	64	93.82
	Dec. 1, 8.00 A.M.	4	9	95.37	K.	Dec. 3, 10.00 A.M.	4	61	91.55
					2d M.-G. Plat.				
						Dec. 2, 7.00 P.M.	4	9	93.33
Figure of merit of Regiment,				92.56	Figure of merit of Regiment,				92.28

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.*			57		B.	Dec. 1, 1.00 P.M.	4	58	85.75
B.	Dec. 1, 10.30 A.M.	5	49	85.60	C.	Dec. 8, 8.00 A.M.	6	64	93.82
C.	Dec. 3, 7.00 A.M.	5	47	83.67	D.	Dec. 1, 8.00 A.M.	4	66	87.89
D.	Dec. 2, 9.00 P.M.	5	58	86.33	E.	Dec. 6, 2.00 P.M.	4	59	85.85
E.	Dec. 1, 10.30 A.M.	4	60	84.29	F.	Dec. 10, 9.00 A.M.	4	53	87.37
F.	Dec. 4, 7.00 A.M.	5	48	76.66	G.	Dec. 2, 1.00 P.M.	5	65	91.82
G.	Dec. 2, 7.00 A.M.	5	53	79.20	I.	Dec. 3, 8.00 A.M.	6	55	89.18
I.	Dec. 3, 7.30 P.M.	4	58	84.60	K.	Dec. 1, 8.00 A.M.	4	54	81.19
3d M.-G. Plat.					4th M.-G. Plat.				
	Dec. 6, 12.00 M.	4	8	95.25		Dec. 3, 5.00 P.M.	4	9	91.67
Figure of merit of Regiment,				84.45	Figure of merit of Regiment,				88.28

* Organization incomplete.

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Dec. 2,	4	64	82.88	1st	Dec. 3,	4	34	76.66
B.	Dec. 2,	4	64	90.17	2d	Dec. 3,	4	38	81.24
C.	Dec. 3,	5	63	85.31					
Figure of merit of Battalion,				86.12	Figure of merit of Battery,				78.95

III. The following hospital ambulance flags, as prescribed in par. 1263, U. S. Army Regulations, in accordance with Art. VII of the Geneva Convention, 1882, are hereby adopted by the State :

For general hospitals, white bunting, 9 by 5 feet, with a red cross 4 feet high and 4 feet wide, of red bunting, in center; arms of cross to be 16 inches wide.

For post and field hospitals, white bunting, 6 by 4 feet, with a red cross 3 feet high and 3 feet wide, of red bunting, in center; arms of cross to be 12 inches wide.

For ambulance and guidons to mark the way to field hospitals, white bunting, 16 by 28 inches, with a red cross 12 inches high and 12 inches wide, of red bunting, in center; arms of cross to be 4 inches wide.

The arm badge (*brassard*) to be worn by all neutrals is as follows: Of white cloth, 16 inches long and 3 wide with a cross of red cloth 2 inches high and 2 inches wide, in center, to be worn upon the left arm above the elbow, in addition to insignia designating the military rank of the wearer.

IV. Medical officers and Hospital Stewards, C. N. G., when on duty in the field will hereafter wear the arm badge as above described.

By order of the Commander-in-Chief,

STEPHEN R. SMITH, •

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 1. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, January 6, 1887.

I. The following order from the Commander-in-Chief is hereby promulgated for the information of all concerned :

STATE OF CONNECTICUT.

EXECUTIVE DEPARTMENT,
HARTFORD, January 6, 1887.

ORDER :

The following-named persons have been appointed on the Staff of the Governor and Commander-in-Chief, to take rank from the 6th day of January, 1887.

FREDERICK E. CAMP, of Middletown, to be Adjutant-General, with rank of Brigadier-General.

CHARLES OLMSTEAD, of Norwalk, to be Quartermaster-General, with rank of Brigadier-General.

CHARLES J. FOX, of Windham, to be Surgeon General, with rank of Brigadier-General.

JOHN B. CLAPP, of Hartford, to be Commissary-General, with rank of Brigadier-General.

CHARLES H. PINE, of Derby, to be Paymaster-General, with rank of Brigadier-General.

SAMUEL B. HORNE, of Winchester, to be Aide-de-Camp, with rank of Colonel.

SELAH G. BLAKEMAN, of Huntington, to be Aide-de-Camp, with rank of Colonel.

J. DWIGHT CHAFFEE, of Mansfield, to be Aide-de-Camp, with rank of Colonel.

EDWIN H. MATHEWSON, of Norwalk, to be Aide-de-Camp, with rank of Colonel.

They will be obeyed and respected accordingly.

The Adjutant-General is hereby charged with the promulgation of this order to all concerned.

PHINEAS C. LOUNSBURY,

Governor and Commander-in-Chief.

II. The following appointments are hereby announced for the information of all concerned:

GEORGE M. WHITE, of New Haven, to be Assistant Adjutant-General, with rank of Colonel, from January 8, 1885 — Re-appointment.

HENRY C. MORGAN, of Colchester, to be Assistant Quartermaster-General, with rank of Lieutenant-Colonel, from January 6, 1887.

By order of the Commander-in-Chief,

FREDERICK E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 2. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, January 17, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since December 18, 1886:

RESIGNED AND DISCHARGED.

BRIGADE STAFF.

Major John B. Clapp, Brigade Inspector, January 5, 1887.

SECOND REGIMENT.

Lieutenant-Colonel Henry R. Loomis, January 12, 1887.

First Lieutenant Albert L. Dillenbeck, Paymaster, December 28, 1886.

First Lieutenant Leman H. Bates, Company F, January 13, 1887.

THIRD REGIMENT.

First Lieutenant Charles F. Starr, Quartermaster, January 6, 1887.

Second Lieutenant Herbert N. Small, Company C, January 6, 1887.

FIFTH BATTALION.

Second Lieutenant William H. Jackson, Company A, December 27, 1886.

PROMOTED AND APPOINTED.

SECOND REGIMENT.

First Sergeant George H. Wilkinson, of Wallingford, appointed Second Lieutenant Company K, with rank from December 30, 1886, *vice* Norton, resigned.

THIRD REGIMENT.

First Lieutenant Irving E. Hill, Paymaster, of Norwich, appointed First Lieutenant Company C, with rank from December 7, 1886, *vice* Linton, promoted.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of December, 1886, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Jan. 1, 5 00 P.M.	4	58	87.48	A.	Jan. 3, 2.00 P.M.	3	67	96.02
B.	Jan. 1, 1.00 P.M.	4	67	94.03	B.	Jan. 7, 10.00 A.M.	4	66	89.91
D.	Jan. 5, 8.00 A.M.	4	62	92.14	C.	Jan. 4, 10.00 A.M.	4	63	95.89
E.	Jan. 4, 8.00 P.M.	4	63	87.96	D.	Jan. 5, 10.00 A.M.	5	67	99.00
F.	Jan. 1, 8.00 P.M.	4	62	93.75	E.	Jan. 3, 10.00 A.M.	4	67	93.03
G.	Jan. 3, 1 00 P.M.	4	64	89.65	F.	Jan. 1, 10.00 A.M.	4	54	88.60
H.	Jan. 1, 1.00 P.M.	4	66	91.42	G.	Jan. 3, 2.00 P.M.	4	57	88.59
K.	Jan. 1, 8.00 A.M.	4	63	92.72	H.	Jan. 6, 10.00 A.M.	4	57	85.67
1st M.-G. Plat.	Jan. 1, 8.00 A.M.	4	9	91.67	I.	Jan. 3, 11.00 A.M.	4	63	89.54
					K.	Jan. 3, 8.00 A.M.	5	60	91.52
					2d M.-G. Plat.				
					Jan. 4, 10.00 A.M.	4	9		89.81
Figure of merit of Regiment,				91.20	Figure of merit of Regiment,				91.60

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.*	No report.				B.	Jan. 4, 9.00 A.M.	4	61	89.91
B.	Jan. 2, 12.00 M.	4	49	84.24	C.	Jan. 6, 9.00 A.M.	4	66	93.95
C.	Jan. 3, 5.00 P.M.	4	49	80.16	D.	Jan. 3, 9.00 A.M.	5	67	89.05
D.	Jan. 3, 7.00 P.M.	4	59	84.16	E.	Jan. 4, 9.00 A.M.	4	61	84.45
E.	Jan. 1, 12.00 M.	5	55	81.30	F.	Jan. 1, 9.00 A.M.	5	54	88.60
F.	Jan. 2, 9.00 A.M.	4	48	73.19	G.	Jan. 3, 10.00 A.M.	4	65	94.39
G.	Jan. 2, 9.00 A.M.	5	54	73.78	I.	Jan. 4, 9.00 A.M.	4	55	83.73
I.	Jan. 4, 7.00 P.M.	4	62	83.53	K.	Jan. 3, 7.00 A.M.	4	54	80.57
3d M.-G. Plat.					4th M.-G. Plat.				
	Jan. 1, 12.00 A.M.	5	8	93.80		Jan. 3, 2.00 P.M.	4	9	90.74
Figure of merit of Regiment,				81.77	Figure of merit of Regiment,				88.38

* Organization incomplete.

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Jan. 3,	5	60	77.07	1st	Jan. 6,	2	32	63.10
B.	Jan. 2,	5	62	86.76	2d	Jan. 3,	5	38	88.79
C.	Jan. 3,	5	62	84.07					
Figure of merit of Battalion,				82.63	Figure of merit of Battery,				75.95

By order of the Commander-in-Chief,
 FREDERICK E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
 No. 3. }

ADJUTANT-GENERAL'S OFFICE,
 HARTFORD, February 19, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since January 17, 1887:

RESIGNED AND DISCHARGED.

FIRST REGIMENT.

Captain Arthur J. Wetherell, Company G, January 28, 1887.

SECOND REGIMENT.

First Lieutenant John Widman, Jr., Company B, February 9, 1887.

Second Lieutenant Carlton L. Parsons, Company D, February 18, 1887.

FOURTH REGIMENT.

First Lieutenant Francis A. King, Company B, January 25, 1887.

PROMOTED AND APPOINTED.

BRIGADE STAFF.

Captain Alexander Allen, Company F, First Regiment, of Hartford, appointed Brigade Inspector, with rank of Major from January 17, 1887, *vice* Clapp, resigned.

FIRST REGIMENT.

Second Lieutenant George B. Newton of Hartford, appointed Captain Company F, with rank from February 7, 1887, *vice* Allen, promoted.

First Sergeant Louis B. Hubbard of Hartford, appointed Second Lieutenant Company F, with rank from February 7, 1887, *vice* Newton, promoted.

SECOND REGIMENT.

Major John B. Doherty of Waterbury, appointed Lieutenant-Colonel, with rank from January 24, 1887, *vice* Loomis, resigned.

Captain Frank T. Lee, Company F, of New Haven, appointed Major, with rank from January 24, 1887, *vice* Doherty, promoted.

Second Lieutenant Charles C. Ford of New Haven, appointed First Lieutenant Company F, with rank from January 19, 1887, *vice* Bates, resigned.

First Sergeant Harvey S. Munson of New Haven, appointed Second Lieutenant Company F, with rank from January 19, 1887, *vice* Ford, promoted.

THIRD REGIMENT.

First Sergeant William E. Pendleton, Company D, of New London, appointed Quartermaster, with rank of First Lieutenant, from January 7, 1887, *vice* Starr, resigned.

Commissary-Sergeant George M. Cole of New London, appointed Paymaster, with rank of First Lieutenant; from January 7, 1887, *vice* Hill, appointed First Lieutenant Company C.

James Moran of New London, appointed Captain Company A, with rank from November 30, 1886: original appointment.

Private John F. Murray of New London, appointed First Lieutenant Company A, with rank from November 30, 1886: original appointment.

Private Edward R. May of New London, appointed Second Lieutenant Company A, with rank from November 30, 1886: original appointment.

Sergeant Fred. A. Fox of Norwich, appointed Second Lieutenant Company C, with rank from January 18, 1887, *vice* Small, resigned.

FIFTH BATTALION.

First Sergeant Charles E. Fuller of New Haven, appointed Second Lieutenant Company A, with rank from January 7, 1887, *vice* Jackson, resigned.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of January, 1887, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Feb. 1, 9.30 P.M.	5	58	89.20	A.	Feb. 2, 10.00 A.M.	4	67	97.01
B.	Feb. 5, 12.00 M.	5	67	96.02	B.	Feb. 1, 8.00 A.M.	4	67	92.54
D.	Feb. 2, 9.00 P.M.	4	65	95.93	C.	Feb. 1, 8.00 A.M.	4	65	97.98
E.	Feb. 1, 10.00 A.M.	4	63	89.54	D.	Feb. 2, 10.00 A.M.	4	67	98.01
F.	Feb. 1, 4.00 P.M.	5	61	92.10	E.	Feb. 1, 9.30 A.M.	4	67	94.03
G.	Feb. 1, 10.30 P.M.	5	64	89.65	F.	Feb. 4, 10.00 A.M.	4	57	89.76
H.	Feb. 1, 7.00 A.M.	4	67	93.53	G.	Feb. 1, 8.00 A.M.	3	58	86.90
K.	Feb. 1, 7.00 A.M.	5	66	94.96	H.	Feb. 1, 2.00 P.M.	4	58	87.48
1st M.-G. Plat.					I.	Feb. 2, 8.00 P.M.	4	63	90.60
	Feb. 1, 7.00 A.M.	4	9	95.37	K.	Feb. 1, 8.00 A.M.	4	60	94.29
					2d M.-G. Plat.				
						Feb. 2, 10.00 A.M.	4	9	86.11
Figure of merit of Regiment, 92.92					Figure of merit of Regiment, 92.25				

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.*	No report.				B.	Feb. 1, 1.00 P.M.	5	61	90.46
B.	Feb. 1, 10.00 A.M.	5	49	84.92	C.	Feb. 5, 9.00 A.M.	4	65	93.36
C.	Feb. 1, 10.00 A.M.	4	48	80.82	D.	Feb. 1, 9.00 A.M.	4	67	92.04
D.	Feb. 1, 7.00 A.M.	6	59	85.28	E.	Feb. 2, 4.00 P.M.	5	60	87.07
E.	Feb. 1, 7.00 P.M.	4	52	86.13	F.	Feb. 1, 1.00 P.M.	4	52	89.97
F.	Feb. 1,	4	46	75.06	G.	Feb. 1, 1.00 P.M.	4	65	95.93
G.	Feb. 1, 10.00 A.M.	4	57	74.56	I.	Feb. 1, 6.00 P.M.	4	58	88.63
I.	Feb. 1,	4	62	85.69	K.	Feb. 1, 7.00 A.M.	4	53	82.34
3d M.-G. Plat.					4th M.-G. Plat.				
	Feb. 1,	4	9	97.17		Feb. 2, 5.00 P.M.	4	9	91.67
Figure of merit of Regiment, 83.70					Figure of merit of Regiment, 90.16				

* Organization incomplete.

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Feb. 1,	4	58	81.73	1st	Feb. 1,	4	32	66.64
B.	Feb. 2,	4	62	80.09	2d	Feb. 1,	4	38	82.12
C.	Feb. 1,	4	62	84.07					
Figure of merit of Battalion,				81.96	Figure of merit of Battery,				74.38

By order of the Commander-in-Chief,

FREDERICK E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 4. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, March 15, 1887.

I. The following members of the National Guard are announced as having qualified during the season of 1886, as Sharpshooters, First class Marksmen, and Marksmen, in accordance with Article XXVII, Regulations C. N. G., 1884, and are awarded the State decoration, which is to be worn whenever the dress uniform is worn:

Brigade Staff and Non-Commissioned Staff.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.						
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1886.						
								1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Major W. M. Wellman, Com'y...	21	19	40	22	22	44	Sharps'r,	..	..	..	..	s	s	s
Major C. L. Burdett, E. & S. O.,	14	17	31	18	17	35	1st Cl. M.,	..	..	m	m	s	m	1st c. m.
Capt. Charles G. Lyon, A. D. C.,	19	24	43	19	24	43	Sharps'r.	..	..	..	..	..	m	m
Sergt. M. W. Burwell, Orderly...	17	14	31	20	22	42		..	..	..	m	..	s	s

FIRST REGIMENT.

Field, Staff, and Non-Commissioned Staff.

Colonel W. E. Cone,.....	16	15	31	22	22	44	Sharps'r,	..	m	m	s	..	s
Lt.-Col. C. E. Thompson,.....	22	16	38	22	17	39	1st Cl. M.,	..	m	m	s	m	s
Capt. J. B. Houston, I. R. P.,...	17	17	34	20	21	41	Sharps'r,	..	..	..	..	..	m
1st Lieut. W. T. Fenn, P. M.,...	20	14	34	17	19	36	1st Cl. M.,	..	m	m	m	s	s
1st Lieut. M. Penrose, S. O.,....	18	15	33	18	23	41	Sharps'r,	..	..	..	m	s	1st c. m.

Company A.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.								
	Yds.		Total.	Yds.		Total.		1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
	300	400		200	300											
Captain	E. Schulze.....	20	17	37	17	16	33	1st Cl. M.,	..	m	m	m	m	m	s	1st c. m.
Sergeant	J. C. Bailey.....	17	10	27	16	13	29	Marks'n,	..	..	..	..	m	m	s	..
	J. B. Cowles.....	19	8	27	19	15	34	"	..	..	..	..	m	m	s	m
Corporal	C. F. Wolf.....	19	6	25	16	16	32	"	..	..	..	..	..	..	..	..
"	F. F. Brumbaum.....	19	9	28	15	19	34	"	..	..	..	..	..	m	s	..
Private	Brandt, O. C.....	16	12	28	15	14	29	"	..	..	..	..	..	..	..	..
"	Brewer, W. B.....	13	12	25	15	16	31	"	..	..	..	..	..	m	..	..
"	Brink, E.....	13	14	27	14	18	32	"	..	..	..	..	..	..	..	1st c. m.
"	Kilbourn, G. C.....	13	16	29	16	14	30	"	..	..	..	..	..	..	..	..
"	Ryan, W. F. 1st.....	22	5	27	15	13	28	"	..	..	..	..	m	m	m	..
"	Wolf, F.....	13	13	26	16	13	29	"	..	..	..	..	..	..	..	..

Company B.

Captain T. F. Flanigan,.....	15	21	36	19	19	38	1st Cl. M.,	m	m	m	m	m	s	1st c. m.	
1st Lieut. P. H. Smith,.....	13	14	27	18	19	37	"	..	..	m	m	m	s	s	
Sergeant M. J. Hafey,.....	23	5	28	15	22	37	Marks'n,	..	..	..	m	s	s	1st c. m.	
Corporal T. A. Brady,.....	22	3	25	17	19	36	1st Cl. M.,	..	..	..	..	m	s	m	
Musician A. N. Kingsbury,.....	15	10	25	14	16	30	Marks'n,	..	..	..	..	m	m	1st c. m.	
Private Brady, J. J.,.....	13	12	25	19	18	37	1st Cl. M.,	..	..	..	..	s	s	m	

Company D.

1st Lieut. W. E. Allen,.....	19	24	43	17	18	35	1st Cl. M.,	..	m	m	..	m	m	s	
Sergeant G. W. Caswell,.....	13	15	28	18	14	32	Marks'n,	m	m	..	..	..	m	m	
" F. W. Humphrey,.....	15	13	28	13	16	29	"	..	..	..	..	m	m	..	
Private Clark, J.,.....	16	11	27	16	14	30	"	..	..	..	..	m	m	m	
" Senf, J.,.....	18	7	25	13	13	26	"	..	..	..	..	..	..	m	

Company E.

Captain A. L. Thompson,.....	21	20	41	21	20	41	Sharps'r,	m	m	m	..	..	s	s	1st c. m.
2d Lieut. H. G. Upson,.....	19	10	29	18	19	37	1st Cl. M.,	..	..	..	..	..	m	m	
Sergeant H. N. Saunders,.....	17	10	27	14	13	27	Marks'n,	..	..	..	..	..	m	m	1st c. m.
" S. Sautter, Jr.,.....	19	12	31	19	19	38	1st Cl. M.,	..	..	..	..	..	m	m	1st c. m.
" G. C. Rawlins,.....	16	10	26	19	20	39	"	..	..	..	..	..	m	m	
Corporal L. Soneson,.....	15	21	36	19	18	37	"	..	..	..	..	..	m	m	
" E. Cooper,.....	14	21	35	19	19	38	"	..	..	..	..	..	m	m	
Musician C. A. Chamberlain,.....	17	19	36	15	15	30	Marks'n,	..	m	m	..	..	..	..	1st c. m.
Private Bullen, F.,.....	15	11	26	18	18	36	1st Cl. M.,	..	..	..	..	..	..	..
" Gladding, W. M.,.....	14	15	29	17	14	31	Marks'n,	..	..	..	..	..	m	..	
" Nilson, G.,.....	14	12	26	16	18	34	"	..	..	..	..	..	m	m	
" Richardson, F. E.,.....	14	12	26	15	14	29	"	..	..	..	..	..	m	m	
" Sexton, A. J.,.....	14	11	25	18	13	31	"	..	..	..	..	..	m	m	

Company F.

NAMES.		2d Class.		1st Class.		Designation.	Previous Qualifications.										
		300 Yds.	400 Yds.	Total.	200 Yds.		500 Yds.	Total.	1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Captain	A. Allen.....	16	12	28	17	17	34	1st Cl. M.,	..	m	m	m	..	s	s	..	..
1st Lieut.	E. L. Morse.....	16	17	33	18	18	36	..	..	..	..	..	..	..	..	1st c. m.	..
2d "	G. B. Newton.....	20	22	42	22	24	46	Sharps'r,	m	m	m	s	m	s	s	s	1st c. m.
1st Sergt.	A. W. Green.....	20	22	42	21	21	42	..	m	m	m	s	m	s	s	s	1st c. m.
Q.-M. Sgt.	E. C. Bluehdorn.....	19	8	27	20	20	40	..	m	m	m	m	m	s	s	s	1st c. m.
Sergeant	L. B. Hubbard.....	20	5	25	20	22	42	..	..	m	m	s	..	m	s	..	..
"	C. W. Newton.....	18	17	35	17	17	34	1st Cl. M.,	..	m	m	m	m	m	s	s	..
Corporal	G. W. Ripley.....	20	18	38	18	20	38	..	..	..	..	..	m	s	s	s	..
"	N. H. Stevens.....	13	13	26	20	21	41	Sharps'r,	..	..	..	..	..	m	s	s	1st c. m.
"	L. H. Hutchinson.....	16	12	28	19	20	39	1st Cl. M.	..	..	..	..	..	m	m	m	1st c. m.
"	F. E. Hovey.....	18	7	25	18	14	32	Marks'n,	..	..	..	..	..	m	m	m	..
Musician	E. S. Jordan.....	15	21	36	16	18	34	..	..	..	..	..	..	..	..	..	..
Private	Avery, F. H.,.....	13	14	27	15	13	28	..	..	..	..	..	..	..	..	..	..
"	Bolles, E. F.,.....	14	13	27	17	14	31	..	..	..	..	..	..	..	..	..	..
"	Bruce, W. H.,.....	14	15	29	16	15	31	..	..	..	..	..	..	s	s	1st c. m.	..
"	Clapp, G. I.,.....	16	9	25	14	14	28	..	..	..	..	..	..	..	m	..	..
"	Carpenter, F. H.,.....	14	20	34	17	14	31	..	..	..	..	..	..	..	..	m	..
"	Ford, W. B.,.....	14	12	26	15	17	32	..	..	..	..	..	..	..	..	..	..
"	Griswold, F. B.,.....	16	12	28	18	22	40	Sharps'r,	..	..	..	..	..	..	s	..	..
"	Hannum, Jr., T. W.,.....	13	13	26	14	13	27	Marks'n,	..	..	..	..	..	..	s	..	..
"	Hooker, E. W.,.....	16	10	26	16	20	36	..	..	..	..	..	..	..	..	..	..
"	Johnson, C. E.,.....	15	17	32	17	19	36	1st Cl. M.,	..	..	..	..	m	m	s	..	..
"	Johnson, M.,.....	19	18	37	18	19	37	..	..	..	..	..	..	m	s	m	..
"	Lane, W. E.,.....	15	16	31	16	20	36	Marks'n,	..	..	..	..	..	..	..	..	..
"	Lockwood, F. P.,.....	18	16	34	16	18	34	..	..	..	..	..	..	..	..	..	..
"	Luther, G. F.,.....	15	21	36	18	17	35	1st Cl. M.,	..	..	..	..	..	..	..	m	..
"	Peltier, F. H.,.....	14	14	28	16	13	29	Marks'n,	..	..	..	..	..	..	s	..	..
"	Pember, E. E.,.....	14	14	28	15	14	29	..	..	..	..	..	..	..	..	..	..
"	Powell, E.,.....	20	8	28	16	15	31	..	..	..	..	..	..	m	m	m	..
"	Smith, F. H.,.....	18	11	29	18	22	40	Sharps'r,	..	..	..	..	..	..	m	m	..
"	Smith, F. B.,.....	15	13	28	14	17	31	Marks'n,	..	..	..	..	..	..	m	m	..
"	Stancliff, Jr., H. T.,.....	21	6	27	19	20	39	1st Cl. M.,	..	..	..	..	..	..	..	s	1st c. m.
"	Starr, T. K.,.....	16	14	30	15	17	32	Marks'n,	..	..	..	..	..	..	..	..	..
"	Strong, H. S.,.....	16	15	31	15	16	31	..	..	..	..	..	..	..	..	..	..
"	Stuart, G. W.,.....	14	11	25	15	15	30	..	..	..	..	..	..	m	s	m	..
"	Whittelsey, M. H.,.....	13	13	26	18	14	32	..	..	..	..	..	..	..	m	m	..

Company G.

2d Lieut. C. L. Bissell.....	17	11	28	17	18	35	1st Cl. M.,	..	..	..	..	m	m	s	1st c. m.	..
Sergeant T. J. Quish.....	19	8	27	16	14	30	Marks'n,	..	..	..	..	..	..	m	..	..
Corporal J. Marley.....	20	7	27	13	14	27	..	..	..	..	..	..	..	m	m	..
" T. Joyce.....	16	14	30	18	20	38	1st Cl. M.,	..	..	..	..	..	..	m	m	..
Musician J. O'Brien.....	20	12	32	15	15	30	Marks'n,	..	..	..	..	..	..	m	m	..
Private Runde, G.,.....	15	11	26	17	19	36	1st Cl. M.,	..	..	..	..	..	..	m	..	..

Company H.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.							
			Total.			Total.									
	300 Yds.	400 Yds.		200 Yds.	500 Yds.	1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	
Captain	W. H. McLean,.....	18	24	42	20	16	36	1st Cl. M.,	m	m	m	s	m	s	1st c. m.
2d Lieut.	C. H. Patterson,.....	19	17	36	17	16	33	"		m	m	m		s	s
Sergeant	W. H. Thompson,.....	20	22	42	18	17	35	"	m					s	m
"	T. Oakes,.....	15	19	34	15	14	29	Marks'n,					m	m	
"	E. E. Wiley,.....	18	16	34	16	13	29	"							m
Q.-M. Sgt.	J. Cunningham,.....	16	10	26	14	19	33	"				m	m	s	s
Corporal	C. D. Barnum,.....	15	17	32	15	17	32	"							
"	A. Collins,.....	18	17	35	19	17	36	1st Cl. M.,						s	s
Musician	J. H. Bailey,.....	17	18	35	15	21	36	Marks'n,					m	s	
Private	Cusick, M.,.....	18	15	33	15	18	33	"						m	m
"	Clark, G. B.,.....	16	12	28	16	18	34	"							
"	Dougherty, C. W.,.....	17	16	33	19	21	40	Sharps'r,		m				s	
"	Gabriel, C. C.,.....	19	19	38	14	17	31	Marks'n,					m	s	m
"	Haven, F. C.,.....	15	13	28	17	16	33	1st Cl. M.,							
"	Harper, M. J., Jr.,.....	16	14	30	14	17	31	Marks'n,						m	m
"	Murray, P. F.,.....	20	9	29	18	19	37	1st Cl. M.,						m	m
"	Sheriden, A. J.,.....	13	12	25	15	13	28	Marks'n,							
"	Twitchell, F. D.,.....	18	19	37	17	15	32	"				m	s	s	s

Company K.

Captain S. O. Prentice,.....	18	20	38	19	20	39	1st Cl. M.,		m	m	m	m	s	s	s
1st Lieut. J. H. Jarman,.....	21	15	36	20	21	41	Sharps'r,		m	m	s	m	s	s	s
2d " DeW. P. Preston,.....	18	19	37	22	20	42	"		m	m	s	m	s	s	s
Sergeant S. H. Cornwell,.....	14	15	29	17	18	35	1st Cl. M.,				m	m	m	m	m
Q.-M. Sgt. C. B. Latimer,.....	13	18	31	19	17	36	"					m	s	s	1st c. m.
Corporal G. L. Plummer,.....	17	11	28	19	24	43	Sharps'r,						s	s	m
" H. S. Redfield,.....	15	15	30	20	20	40	"						m	s	m
" W. E. Farnsworth,.....	14	12	26	15	20	35	Marks'n,							s	m
" F. L. Hamilton,.....	14	12	26	13	15	28	"						m	m	m
" C. H. Slocum,.....	17	9	26	19	20	39	1st Cl. M.,			m	m	m	m	m	m
Musician E. F. Harrington,.....	20	19	39	15	18	33	Marks'n,					m	m	s	s
Private Billings, F. C.,.....	15	15	30	17	16	33	1st Cl. M.,							m	s
" Burnham, J. W.,.....	23	18	41	19	22	41	Sharps'r,							s	s
" Davidson, W. B.,.....	24	19	43	21	20	41	"								1st c. m.
" Harris, C. C.,.....	15	11	26	20	16	36	1st Cl. M.,							m	
" Holway, W. H.,.....	15	17	32	14	16	30	Marks'n,						m	m	
" Judd, E. Y.,.....	16	19	35	20	20	40	Sharps'r,								
" Kimberly, T. A.,.....	15	11	26	19	16	35	1st Cl. M.,		m	m	m	m	s	s	1st c. m.
" Parker, L. D.,.....	16	18	34	16	20	36	Marks'n,					m	s	s	m
" Shepard, C. E.,.....	17	15	32	13	14	27	"								
" Spaulding, J. E.,.....	15	16	31	14	14	28	"							m	
" Tracy, F. P.,.....	14	19	33	16	17	33	"								m
" Turner, F. W.,.....	19	18	37	14	18	32	"					m	m	s	
" Way, R. F.,.....	22	17	39	18	19	37	1st Cl. M.,								
" Wiley, J. A.,.....	20	16	36	18	16	34	"				m	m	m	s	
" Willard, W. A.,.....	18	15	33	17	21	38	"		m	m	m	m	s	s	1st c. m.

SECOND REGIMENT.

Field, Staff, and Non-Commissioned Staff.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.								
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Colonel W. J. Leavenworth,.....	21	16	37	19	17	36	1st Cl. M.,	..	..	..	..	..	..	..	..	m
Lieut.-Col. H. R. Loomis,.....	18	11	29	21	16	37	"	..	m	m	m	m	..	..	..	m
Major J. B. Doherty,.....	17	17	34	17	20	37	"	..	..	..	..	..	..	..	..	1st c. m.
Capt. T. T. Welles, Adj.,.....	20	15	35	23	21	44	Sharps'r,	m	m	m	m	m	s	s	s	s
Captain A. Allen, I. R. P.,.....	23	20	43	22	23	45	"	..	..	..	m	s	s	s	s	s
1st Lt. A. L. Dillenbeck, P. M.,...	19	17	36	17	16	33	1st Cl. M.,	..	..	..	..	..	..	m	s	s
1st Lt. C. H. French, Asst. Sur.,...	14	17	31	18	18	36	"	..	..	..	..	..	..	..	..	1st c. m.
1st Lt. W. E. Jackson, S. O.,.....	18	17	35	20	20	40	Sharps'r,	..	..	..	..	..	..	m	m	1st c. m.
1st Lt. F. J. Duffy, Q.-M.,.....	19	17	36	20	17	37	1st Cl. M.,	..	..	m	m	..	..	..	..	s
Q.-M. Sergt. C. L. Ball,.....	16	16	32	15	17	32	Marks'n,	..	..	..	..	..	..	..	..	m

Company A.

Captain	Frank L. Blakely,.....	15	10	25	20	23	43	Sharps'r,	..	..	..	..	..	..	m	s
1st Lieut.	L. F. Burpee,.....	22	13	35	18	17	35	1st Cl. M.,	..	..	..	..	..	..	..	..
2d "	F. M. Bronson,.....	14	13	27	17	17	34	"	..	..	..	..	m	..	..	1st c. m.
1st Sergt.	U. A. Warner,.....	20	5	25	19	21	40	Sharps'r,	..	m	m	m	m	m	m	s
Q.-M. Sgt.	C. A. Smith,.....	13	13	26	15	17	32	Marks'n,	..	..	..	..	..	..	..	m
Sergeant	J. O. DeVine,.....	21	5	26	22	20	42	Sharps'r,	..	..	m	m	m	..	..	m
"	F. M. Berry,.....	15	12	27	17	17	34	1st Cl. M.,	..	..	..	..	..	m	m	..
"	H. P. Bailey,.....	18	11	29	18	13	31	Marks'n,	..	..	..	..	..	m	..	m
"	M. H. Wilson,.....	22	4	26	16	18	34	"	..	..	..	..	..	m	..	1st c. m.
Corporal	E. R. Heebner,.....	15	13	28	16	14	30	"	..	..	..	..	..	..	..	..
"	E. J. Schuyler,.....	18	9	27	20	18	38	1st Cl. M.,	..	..	..	..	..	..	..	m
"	E. H. Beardsley,.....	18	7	25	21	17	38	"	..	..	..	..	m	..	..	m
"	W. H. Claxton,.....	13	14	27	16	14	30	Marks'n,	..	..	..	..	..	..	..	..
"	W. R. Keavaney,.....	17	11	28	15	13	28	"	..	..	..	..	..	..	..	..
"	E. L. Goldsmith,.....	17	10	27	20	19	39	1st Cl. M.,	..	..	..	..	..	..	..	m
Private	Baker, W. E.,.....	16	14	30	19	17	36	"	..	..	..	..	..	..	..	..
"	Carter, H. E.,.....	22	5	27	18	17	35	"	..	..	..	..	..	..	m	1st c. m.
"	Case, W. H.,.....	18	10	28	17	16	33	"	..	..	..	..	..	..	..	m
"	Ensign, F. S.,.....	14	11	25	18	14	32	Marks'n,	..	..	..	..	..	..	..	..
"	Fitzpatrick, J. W.,.....	15	17	32	18	18	36	1st Cl. M.,	..	..	..	..	..	..	..	1st c. m.
"	Goldsmith, W. A.,.....	18	7	25	16	20	36	Marks'n,	..	..	..	..	..	..	..	m
"	Hall, G. B.,.....	15	11	26	17	17	34	1st Cl. M.,	..	..	..	..	m	..	..	..
"	Hitchcock, A. D.,.....	14	13	27	14	13	27	Marks'n,	..	..	..	..	..	..	..	..
"	Hart, E.,.....	15	17	32	17	14	31	"	..	..	..	..	..	..	..	..
"	Jenner, R.,.....	19	7	26	18	17	35	1st Cl. M.,	..	..	..	..	m	m	m	1st c. m.
"	Landon, J. A.,.....	17	11	28	17	16	33	"	..	..	..	..	..	..	..	m
"	Latin, A. N.,.....	13	14	27	17	16	33	"	..	..	..	..	..	..	..	m
"	Miller, F. D.,.....	18	9	27	16	13	29	Marks'n,	..	..	..	..	..	..	..	..
"	Munson, C. E.,.....	17	8	25	16	14	30	"	..	..	..	..	..	..	..	m
"	Munson, W. L.,.....	20	5	25	16	14	30	"	..	..	..	..	..	..	..	m
"	Platt, J. E.,.....	17	11	28	18	13	31	"	..	..	..	..	..	..	..	m
"	Reid, T. D.,.....	14	13	27	18	17	35	1st Cl. M.,	..	..	..	..	..	..	..	1st c. m.
"	Reynolds, H. J.,.....	18	9	27	14	17	31	Marks'n,	..	..	..	..	..	..	..	1st c. m.
"	Sharpe, G. W.,.....	13	12	25	16	20	36	"	..	..	..	..	..	..	..	1st c. m.
"	Ward, J. W.,.....	14	13	27	18	15	33	"	..	..	..	..	..	..	..	s
"	Whitman, J. S.,.....	18	17	35	17	16	33	1st Cl. M.,	..	..	..	..	..	..	..	..
"	Woods, W. L.,.....	15	10	25	19	17	36	"	..	..	..	..	..	..	..	m

Company B.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.								
	300 Yds.		Total.	500 Yds.		Total.		1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
	300 Yds.	400 Yds.		500 Yds.	600 Yds.											
Captain	J. Gutt.....	13	13	26	17	16	33	1st Cl. M.,								
1st Lieut.	J. Widman, Jr.,.....	14	14	28	17	16	33	"		m						
Private	Davy, G.,.....	13	13	26	13	22	35	Marks'n,								
"	Gadd, W. W.,.....	12	13	31	17	13	30	"								
"	Goetze, W. F.,.....	13	13	26	19	19	38	1st Cl. M.,								
"	Hansman, A.,.....	16	13	29	16	13	29	Marks'n,								
"	Molen, A. H.,.....	14	14	28	16	17	33	"								
"	Smith, C. F., 2d.,.....	14	14	28	16	15	31	"								
"	Whiting, E. M.,.....	15	16	31	16	16	32	"								

Company C.

Captain J. Garrity,.....	23	19	42	21	20	41	Sharps'r,		m	m					1st c. m.
1st Lieut. T. F. Callahan,.....	19	18	37	20	22	42	"								s
2d " M. Creed,.....	20	20	40	18	16	34	1st Cl. M.,		m				s		s
1st Sergt. B. M. Daily,.....	17	22	39	20	22	42	Sharps'r,					m			s
Q.-M. Sgt. M. J. Coffey,.....	13	20	33	18	15	33	Marks'n,								m
Sergeant M. O'Connor,.....	17	23	40	21	19	40	Sharps'r,		m	m					
" J. J. Kennedy,.....	16	17	33	21	20	41	"		m	m					m
" J. Plunkett,.....	16	21	37	21	22	43	"								m
Corporal M. P. Donohue,.....	14	16	30	18	17	35	1st Cl. M.,								m
" J. Gallagher,.....	14	13	27	19	19	38	"								m
" J. J. Whalen,.....	14	16	30	19	16	35	"								m
Private Benton, J., Jr.,.....	14	14	28	13	13	26	Marks'n,								m
" Bradley, J. F.,.....	20	18	38	20	20	40	Sharps'r,					m			
" Carney, S. J.,.....	16	18	34	20	18	38	1st Cl. M.,								
" Dooley, F. M.,.....	15	17	32	17	13	30	Marks'n,								m
" Hiney, J. W.,.....	16	17	33	21	21	42	Sharps'r,								m
" McGovern, J. H.,.....	14	15	29	17	16	33	1st Cl. M.,								m
" McKeon, H.,.....	16	13	29	22	20	42	Sharps'r,								m
" McKiernan, T. F.,.....	17	19	36	19	19	38	1st Cl. M.,								m
" Whalen, J. V.,.....	15	16	31	13	14	27	Marks'n,								m

Company D.

1st Lieut. R. G. Christie,.....	13	18	31	20	19	39	1st Cl. M.,								
2d " C. L. Parsons,.....	16	15	31	20	23	43	Sharps'r,					m			s
1st Sergt. W. E. Beach,.....	14	17	31	19	19	38	1st Cl. M.,		m	m			m		m
Sergeant J. H. Scranton,.....	16	19	35	18	17	35	"					m	s		m
" E. I. Williams,.....	13	15	28	17	20	37	"						m		1st c. m.
Corporal H. W. Sperry,.....	14	16	30	22	18	40	Sharps'r,					m	m		m
Private Bradley, F. S.,.....	15	17	32	19	17	36	1st Cl. M.,								
" Clark, H. P.,.....	14	15	29	18	17	35	"								
" Doherty, W. G.,.....	15	13	28	14	16	30	Marks'n,								
" Fairbanks, F. R.,.....	16	13	29	13	18	31	"								
" Heffner, O.,.....	14	16	30	15	16	31	"								
" Kappeler, L. D.,.....	13	16	29	18	18	36	1st Cl. M.,								m
" Sutcliffe, Joe,.....	16	14	30	14	14	28	Marks'n,								
" Sutcliffe, John T.,.....	13	18	31	14	14	28	"								

Company E.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.							
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1886.							
	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.							
1st Lieut.	R. M. Walker,.....	17	20	37	20	24	44	Sharps'r,	m	m	m	s	s	s	s
2d "	L. B. Fairchild,.....	17	18	35	18	15	33	Marks'n,	..	m	m	m	..	..	s
Sergeant	F. W. Allen,.....	13	17	30	19	22	41	Sharps'r,	..	..	..	m	m	m	1st c. m.
"	A. F. Allen,.....	21	19	40	18	23	41	"	..	..	..	m	..	m	m
"	G. F. Neale,.....	16	16	32	14	15	29	Marks'n,	..	..	..	m	m	..	m
Corporal	C. S. Schappa,.....	16	17	33	20	20	40	Sharps'r,	..	..	..	..	..	m	m
Private	Champion, S. E.,.....	13	14	27	15	14	29	Marks'n,	..	..	..	..	..	m	m
"	Harrison, T. P.,.....	19	15	34	18	22	40	Sharps'r,	..	..	..	..	..	..	..
"	Landon, J. W.,.....	21	18	39	21	23	44	"	..	..	..	..	..	1st c. m.	..
"	Parker, J. H.,.....	16	13	29	18	24	42	"	..	..	..	..	..	m	m
"	Scalley, T. H.,.....	13	18	31	18	22	40	Sharps'r,	..	..	..	..	..	m	..
"	Smith, T. F.,.....	14	15	29	13	15	28	Marks'n,	..	..	..	..	..	..	..
"	Smith, C. F.,.....	15	13	28	17	13	30	"	..	..	..	..	..	..	..
"	Stewart, M. J., Jr.,.....	16	13	29	13	18	31	"	..	..	..	..	..	m	..
"	Welles, H. A.,.....	18	15	33	16	13	29	"	..	..	..	..	..	..	..

Company F.

Captain F. T. Lee,.....	16	13	29	18	17	35	1st Cl. M.,	..	..	..	..	..	..	..	m
1st Lieut. L. H. Bates,.....	19	19	38	21	21	42	Sharps'r,	..	..	..	..	..	..	m	s
2d " C. C. Ford,.....	17	14	31	19	22	41	"	..	..	..	..	..	..	..	1st c. m.
1st Sergt. H. S. Munson,.....	17	12	29	20	22	42	"	..	..	..	..	..	..	m	1st c. m.
Q.-M. Sgt. W. H. Blakeslee,.....	16	15	31	21	22	43	"	..	m	m	..	s	s	s	s
Sergeant E. Taylor,.....	16	19	35	18	18	36	1st Cl. M.,	..	..	..	..	m	..	m	m
Corporal G. C. Gordon,.....	14	17	31	17	16	33	"	..	..	..	..	..	..	m	1st c. m.
" C. F. McCabe,.....	13	16	29	16	17	33	Marks'n,	..	..	..	..	..	..	..	..
" C. Smith,.....	14	13	27	14	17	31	"	..	..	..	..	..	..	m	..
Private E. E. Dutton,.....	14	15	29	21	20	41	Sharps'r,	..	..	..	..	..	..	m	1st c. m.
" Beecher, J. D.,.....	13	14	27	16	16	32	Marks'n,	..	..	..	..	..	..	..	..
" Botsford, N. H.,.....	13	15	28	15	18	33	"	..	..	..	..	..	..	..	..
" Champion, J. N.,.....	18	11	29	18	23	41	Sharps'r,	..	..	..	..	m	..	m	1st c. m.
" Ford, C. H.,.....	13	13	26	13	13	26	Marks'n,	..	..	..	..	..	..	..	1st c. m.
" Gruener, C. T.,.....	15	14	29	17	17	34	1st Cl. M.,	..	..	..	..	..	..	..	m
" Gorham, F. R.,.....	14	16	30	21	20	41	Sharps'r,	..	..	..	..	..	..	..	..
" Hotchkiss, H. G.,.....	16	10	26	17	18	35	1st Cl. M.,	..	..	..	..	..	..	m	..
" Husted, A.,.....	17	14	31	16	14	30	Marks'n,	..	..	..	..	..	..	..	..
" Miner, F. L.,.....	14	12	26	18	19	37	1st Cl. M.,	..	..	..	..	..	..	..	..
" Nicoll, C. D.,.....	16	15	31	17	16	33	"	..	..	..	..	..	..	..	..
" Powning, G. G.,.....	15	16	31	16	15	31	Marks'n,	..	..	..	..	..	..	..	m
" Punderson, S. F.,.....	13	15	28	15	15	30	"	..	..	..	..	..	..	..	..
" Savage, J. B.,.....	23	17	40	19	22	41	Sharps'r,	..	..	..	..	..	..	s	s
" Smith, J. H.,.....	13	19	32	16	17	33	Marks'n,	..	..	..	..	..	..	..	..

Company H.

NAMES.		2d Class.		Total.	1st Class.		Total.	Designation.	Previous Qualifications.								
		300 Yds.	400 Yds.		200 Yds.	500 Yds.			1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	
								1886.									
Captain	W. U. Pearne,	21	19	40	21	21	42	Sharps'r,	m	m	m	s	m	m	m	1st c. m.	
1st Lieut.	B. D. Putnam,	20	21	41	19	17	36	1st Cl. M.,	..	m	m	m	m	m	m	1st c. m.	
2d "	N. H. Smith,	15	20	35	16	13	29	Marks'n,	..	..	..	..	..	..	..
1st Sergt.	W. R. Markham,	17	16	33	13	13	26	"	..	..	..	..	..	..	..
Q.-M. Sgt.	W. A. Holmes,	18	21	39	17	16	33	1st Cl. M.,	..	m	m	m	m	..	m	1st c. m.	
Sergeant	E. W. Hall,	16	19	35	17	16	33	"	..	..	..	m	m	m	m		
Corporal	J. H. Ross,	14	14	28	14	13	27	Marks'n.	..	..	..	..	..	..	..
"	G. H. Kavanaugh,	20	16	36	15	18	33	"	..	..	..	..	..	..	m	m	
"	S. S. Knowles,	17	16	33	13	15	28	"	..	..	..	..	..	..	m		
Musician	C. W. Van Pelt,	13	13	26	16	13	29	"	..	..	..	..	..	..	..
Private	Addis, E. M.,	20	14	34	17	15	32	"	..	..	..	..	..	..	..	m	
"	Bywater, W. C.,	13	15	28	17	22	39	1st Cl. M.	..	..	..	..	..	..	..
"	Clark, H. L.,	16	17	33	17	16	33	"	..	..	..	..	m	m	m		
"	Fish, E.,	18	18	36	20	17	37	"	..	..	..	..	..	..	..	1st c. m.	
"	Fowler, C. A.,	17	16	33	17	14	31	Marks'n,	..	..	..	..	..	..	..	m	
"	Hale, G. E.,	15	14	29	18	14	32	"	..	..	..	..	..	..	..
"	Haling, E. B.,	14	13	27	17	19	36	1st Cl. M.	..	..	..	..	..	..	..
"	Markham, L. H.,	16	14	30	17	17	34	"	..	..	..	..	..	..	..	m	
"	Markham, W. W. B.,	16	18	34	20	18	38	"	..	..	..	..	..	m	m		
"	Redford, G. F.,	18	16	34	19	18	37	"	..	..	..	..	..	..	..
"	Smith, J. C.,	21	18	39	20	13	33	Marks'n,	..	..	..	..	..	..	..	1st c. m.	
"	Ufford, R. H.,	15	13	28	15	14	29	"	..	..	..	..	..	..	..
"	Whitmore, F.,	15	17	32	16	15	31	"	..	..	..	..	..	..	..
"	Young, F. J.,	14	15	29	14	13	27	"	..	..	..	..	..	..	..

Company K.

Captain B. A. Treat,.....	18	16	34	18	21	29	1st Cl. M.,	..	..	..	..	..	..	m	m
1st Lieut. G. G. La Barnes,.....	25	23	48	21	21	42	Sharps'r,	m	m	m	s	s	s	s	s
Sergeant Z. P. Beach,.....	19	20	39	20	20	40	"	m	m	m	m	s	m	s	s
Q.-M. Sgt. J. G. Phelan,.....	18	17	35	21	19	40	"	..	m	m	m	..	..	..	..
Sergeant R. E. Hall,.....	22	21	43	17	17	34	1st Cl. M.,	..	..	..	..	..	..	..	m
Corporal S. J. Stowe,.....	23	21	43	22	18	40	Sharps'r,	..	m	m	..	..	m	m	m
" O. Huntington,.....	18	16	34	20	15	35	Marks'n,	..	..	..	..	m	..	m	..
" C. G. Myers,.....	17	18	35	19	17	36	1st Cl. M.,	..	..	..	..	..	m	..	..
Private Conklin, F. L.,.....	15	13	28	13	13	26	Marks'n.	..	..	..	..	..	..	..	..
" Deming, E. L.,.....	13	14	27	16	13	29	"	..	..	..	..	..	m	..	m
" Dunn, J.,.....	14	13	27	14	13	27	"	..	..	..	..	..	..	..	..
" Liversidge, H.,.....	15	13	28	18	16	34	1st Cl. M.,	..	..	..	..	..	..	..	m
" Mottram, T.,.....	15	14	29	16	13	29	Marks'n.	..	..	..	..	..	..	..	..
" Trask, G. E.,.....	20	19	39	18	18	36	1st Cl. M.	..	..	..	..	..	..	..	..
" Trask, W. S.,.....	16	14	30	16	13	29	Marks'n.	..	..	..	..	..	..	..	..

THIRD REGIMENT.

Field, Staff, and Non-Commissioned Staff.

NAMES.	2d Class.			1st Class.			Desig- nation.	Previous Qualifications.							
	300 Yds.	400 Yds.	Total.	300 Yds.	400 Yds.	Total.		1886.	1878	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Colonel G. Haven,	20	14	34	20	37	1st Cl. M.,	..	m	..	..	..	..	..	..	1st c. m.
Major W. F. Bidwell,	20	13	33	17	18	35	..	..	..	..	..	..	m	m	m
1st Lieut. I. E. Hill, P. M.	16	15	31	19	18	37	..	..	..	..	..	..	m	m	m
1st " T. H. Allen, S. O.	22	21	43	20	18	38	..	..	..	..	..	..	..	..	1st c. m.
Major L. B. Almy, Surgeon,	14	14	28	16	14	30	Mark's'n.	..	..	..	..	..	..	..	..
Captain J. E. Harris, I. R. P.,	20	10	30	18	14	32	..	..	..	..	..	m	m	..	1st c. m.
Sergt. Major D. Connor,	16	14	30	19	18	37	1st Cl. M.,	..	..	..	..	..	..	..	m
Com. Sergt. G. M. Cole,	14	15	29	18	20	38	..	..	..	..	..	..	..	..	m
Q.-M. Sergt. C. F. Holt,	18	13	31	21	17	38	..	..	m	m	..	..	..	m	1st c. m.

Company B.

Captain	D. Keleher.....	15	15	30	14	14	28	Mark's'n,	..	..	m	..	m	m
1st Lieut.	C. Bransfield.....	15	15	30	15	15	30	"	..	m	m	..	m	m
2d	E. Keleher.....	18	16	34	15	17	31	"	..	..	..	..	m	m
Corporal	P. H. O'Connor.....	13	16	29	15	14	29	"	..	..	..	..	m	m
Private	Fitzgerald, W.....	15	16	31	16	13	29	"	..	..	..	..	..	..
"	McKenna, F. J.....	15	15	30	16	15	31	"	..	..	..	..	..	..
"	Traut, T. J.....	17	13	30	14	17	31	"	..	..	..	..	..	..

Company C.

1st Lieut.	T. B. Linton,	18	16	34	15	17	32	Marks'n,	..	..	..	m	m	..	m
2d "	H. N. Small,	15	20	35	20	20	40	Sharps'r,	..	..	..	m	m	..	m
Sergeant	J. J. Toomey,	15	17	32	15	13	28	Marks'n,	..	..	..	..	..	..	m
"	G. L. Griswold,	15	16	31	19	13	32	"	..	..	..	m	m	..	m
"	H. B. Hatton,	17	15	32	19	15	34	"	..	..	..	m	s	..	m
"	E. L. Chappel,	16	18	34	16	14	30	"	..	..	..	m	m	..	m
"	F. W. Hazen,	19	20	39	14	15	29	"	..	..	..	..	..	m	1st c. m.
Corporal	J. F. Amburn,	13	16	29	20	18	38	1st Cl. M.,	..	..	..	..	..	..	m
"	M. J. Lyons,	19	17	36	17	17	31	"	..	..	..	..	..	..	m
"	G. K. Brush,	13	20	33	19	14	33	Marks'n,	..	..	..	m	m	..	m
"	E. W. Tucker,	18	15	33	18	13	31	"	..	..	..	m	..	..	m
"	A. S. Howard,	20	14	34	16	14	30	"	..	..	..	..	..	..	1st c. m.
Musician	F. N. Clark,	14	14	28	16	15	31	"	..	..	..	..	..	..	m
Private	Chapman, F. W.,	17	20	37	13	15	28	"	..	..	..	..	m	..	m
"	Davison, L. E.,	13	16	29	13	15	28	"	..	..	..	..	..	..	m
"	Denison, W. B.,	16	17	33	17	13	30	"	..	..	..	m	m	..	1st c. m.
"	Draper, G. S.,	15	15	30	14	13	27	"	..	..	..	..	..	..	m
"	Fernside, G. W.,	20	17	37	19	15	34	"	..	..	..	..	..	..	m
"	Guile, A. A.,	14	14	28	17	14	31	"	..	..	..	..	..	..	m
"	Lester, J. B.,	16	20	36	17	20	37	1st Cl. M.,	..	..	..	..	..	..	m
"	Peck, J. A.,	14	17	31	15	13	28	Marks'n,	..	..	..	..	..	..	m
"	Platt, W. H.,	16	19	35	22	21	43	Sharps'r,	..	..	..	s	s	..	1st c. m.
"	Robinson, J. E.,	13	14	27	16	17	33	Marks'n,	..	..	..	s	m	..	1st c. m.
"	Stretch, H. J.,	15	16	31	13	15	28	"	..	..	..	..	..	..	m
"	Tuttle, F. L.,	20	19	39	19	17	36	1st Cl. M.	..	..	..	..	..	..	m

Company D.

NAMES.		2d Class.			1st Class.			Designation.	Previous Qualifications.								
		300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Captain	F. E. St. Clare,.....	14	19	33	18	13	31	Marks'n.	..	..	m	..	m	..	..	m
Sergeant	W. E. Pendleton,....	16	12	28	18	16	34	1st Cl. M.,	..	..	..	..	..	..	..	m
Corporal	L. A. Waley,.....	14	11	25	17	14	31	Marks'n.	..	..	..	..	m	..	..	1st c. m.
Private	Waley, G. S.,.....	14	15	29	14	13	27	"	..	..	..	..	m	..	..

Company E.

Captain P. Fitzpatrick,.....	15	15	30	20	20	40	Sharps'r.	..	..	..	..	..	..	..	s
1st Lieut. T. Ashton,.....	20	20	40	19	21	40	"	..	..	..	..	..	..	..	s
1st Sergt. D. F. Murphy,.....	20	17	37	19	21	40	"	..	..	..	m	s	..	..	s
Sergeant J. Kearns,.....	18	17	35	14	14	28	Marks'n.	..	..	..	..	..	..	..	m
Corporal A. Faulds,.....	20	23	43	19	21	40	Sharps'r.	..	..	..	..	..	s	s	
" C. H. Edmonds,.....	17	17	34	17	17	34	1st Cl. M.	..	..	..	..	..	..	..	m
" M. Heffernan,.....	17	18	35	13	15	28	Marks'n.	..	..	..	..	..	..	..

Company F.

Captain P. L. Gibson,.....	21	14	35	13	19	32	Marks'n.								
1st Sergt. F. E. Bitgood,.....	16	18	34	13	15	28	"								
Corporal F. U. Schofield,.....	16	17	33	15	14	29	"								
Private Keach, E. S.,.....	18	15	33	19	18	37	1st Cl. M.								

Company G.

Captain C. A. Winslow,.....	16	16	32	15	13	28	Marks'n.								
2d Lieut. A. M. Parker,.....	18	17	35	14	17	31	"	..	..	..	..	..	..	..	m
1st Sergt. H. J. Thayer,.....	15	14	29	16	13	29	"	..	..	..	..	..	..	..	m
Sergeant W. F. White,.....	19	17	36	20	20	40	Sharps'r.	..	..	..	..	..	..	..	1st c. m.
Corporal F. H. Tourtelott,.....	19	17	36	22	20	42	"	..	..	..	..	..	..	..	1st c. m.
" G. E. Withey, Jr.,.....	22	20	42	18	16	34	1st Cl. M.	..	..	..	..	..	..	..	1st c. m.
" A. Rugg,.....	18	21	39	18	18	36	"	..	..	..	..	..	..	..
" C. E. Richardson,.....	18	13	31	17	14	31	Marks'n.	..	..	..	..	..	..	..
Private Cole, A. R.,.....	18	18	36	17	15	32	"	..	..	..	..	..	..	..	m
" Flagg, D.,.....	21	15	36	18	17	35	1st Cl. M.	..	..	..	..	..	..	..	m
" La Point, H.,.....	15	13	28	14	16	30	Marks'n.	..	..	..	..	..	..	..

Company I.

1st Lieut. F. P. Goff,.....	14	13	27	20	20	40	Sharps'r.	..	..	..	..	..	..	..	1st c. m.
1st Sergt. G. W. Metcalf,.....	17	16	33	21	19	40	"	..	..	..	m	m	m	s	
Sergeant E. L. Crowell,.....	22	18	40	21	20	41	"	..	..	..	m	m	m	m	1st c. m.
" W. R. Beach,.....	15	13	28	19	18	37	1st Cl. M.	..	..	..	..	..	..	..	m
Corporal A. S. Darling,.....	22	18	40	19	19	38	"	..	..	..	..	..	m	m	1st c. m.
" C. A. Miner,.....	19	16	35	21	19	40	Sharps'r.	..	..	m	..	m	..	..
" E. Bergqvist,.....	14	13	27	18	19	37	1st Cl. M.	..	..	..	..	..	..	..	m
" J. A. Malona,.....	19	20	39	20	16	36	"	..	..	..	..	..	m	m	1st c. m.
Private Whitman, F. J.,.....	21	16	37	17	14	31	Marks'n.	..	..	..	..	..	..	..	m

FOURTH REGIMENT.

Field, Staff, and Non-Commissioned Staff.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.								
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Colonel T. L. Watson,.....	22	23	45	21	21	42	Sharps'r,	..	..	m	..	s	..	s	s
Lieut.-Colonel H. Skinner,.....	16	15	31	13	17	30	Marks'n,	..	..	..	..	..	..	..	..
Major J. C. Crowe,.....	15	12	27	17	17	34	1st Cl. M.,	..	..	..	..	..	..	m	m
Major G. F. Lewis, Surgeon,.....	17	20	37	21	24	45	Sharps'r,	..	m	m	..	s	..	s	..	
Capt. L. N. Van Keuren, Adj't.,.....	15	13	28	15	13	28	Marks'n,	..	..	..	..	..	..	..	m
Capt. S. C. Kingman, I. R. P.,.....	22	21	43	21	23	44	Sharps'r,	m	m	m	s	s	..	s	s	
1st Lieut. H. G. Hubbell, Q.-M.,.....	14	14	28	14	14	28	Marks'n,	..	..	..	..	..	..	m	m
1st " W. W. Starr, Jr., S. O.,.....	14	17	31	17	13	30	"	..	..	..	..	..	..	..	m
Chaplain R. G. S. McNeille,.....	19	22	41	14	15	29	"	..	..	..	..	..	..	m	m
Sergt.-Major G. E. Derrick,.....	19	20	39	19	22	41	Sharps'r,	m	m	m	s	s	..	s	s	
Hosp. Steward F. S. Stevens,....	19	21	40	21	23	44	"	..	..	..	..	..	..	s	s

Company B.

Captain	G. W. Cornell,.....	17	17	34	17	16	33	1st Cl. M.,	m	m	m	s	s	m	s
1st Lient.	F. A. King,.....	21	19	40	21	19	40	Sharps'r,	m	m	m	s	m	s	m
2d "	C. H. Gibner,.....	16	17	33	21	19	40	"	m	m	m	s	m	s	m
Sergeant	F. V. Gilhuley,.....	17	16	33	16	21	37	Marks'n,	..	..	..	m	m	m	m
"	G. E. Fox,.....	17	17	34	20	20	40	Sharps'r,	..	..	m	m	m	s	s
Q.-M. Sgt.	G. B. Trowbridge,.....	13	16	29	15	12	28	Marks'n,	..	..	..	..	..	m	m
Corporal	H. St. Cyr,.....	14	18	32	13	14	27	"	..	..	..	..	m	1st c. m.	..
"	A. G. Kohmann,.....	18	15	33	18	15	33	"	..	..	..	..	..	m	m
"	M. F. White,.....	15	16	31	15	15	30	"	..	..	..	..	..	m	m
"	F. B. Couch,.....	21	17	38	14	13	27	"	..	..	..	..	..	..	m
"	G. D. Shelton,.....	16	21	37	17	18	35	1st Cl. M.,	..	..	..	..	..	..	m
Musician	S. H. Fairchild,.....	21	17	38	20	21	41	Sharps'r,	..	..	s	..	..	..	..
"	W. E. Decker,.....	13	13	26	14	13	27	Marks'n,	..	..	..	..	..	m	m
Private	Almstead, W. A.,.....	16	15	31	13	15	28	"	..	..	..	..	..	..	..
"	Blakeman, W. E.,.....	15	17	32	16	13	29	"	..	..	..	..	..	..	..
"	Bridden, W. H.,.....	15	13	28	17	20	37	1st Cl. M.	..	..	..	..	..	..	..
"	Brockway, W. A.,.....	23	17	40	17	16	33	"	..	..	..	..	..	..	..
"	Glenn, W. E.,.....	18	18	36	19	20	39	"	..	..	..	..	..	..	..
"	Houlihan, W.,.....	13	17	30	16	21	37	Marks'n,	..	..	..	..	..	..	..
"	Kerr, G. W.,.....	22	24	46	21	20	41	Sharps'r,	..	..	..	..	..	..	s
"	McFayden, D.,.....	13	15	28	17	19	36	1st Cl. M.	..	..	..	..	..	..	..
"	North, G. H.,.....	14	18	32	13	16	29	Marks'n,	..	..	..	..	..	..	m
"	Niblo, C. F.,.....	16	17	33	14	14	28	"	..	..	..	..	..	..	..
"	Nichols, G. L.,.....	15	15	30	19	17	36	1st Cl. M.,	..	..	..	..	..	..	..
"	Romayne, M. B.,.....	15	13	28	15	13	28	Marks'n,	..	..	..	..	..	..	m
"	Skaats, G. Z.,.....	16	15	31	18	15	33	"	..	..	..	..	..	m	..
"	Way, F. E.,.....	14	17	31	13	13	26	"	..	..	..	..	..	..	..

Company D.

NAMES.	2d Class.			1st Class.			Designation.	Previous Qualifications.							
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.									
							1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Captain R. Frost,.....	23	17	40	20	24	44	Sharps'r.								
1st Lieut. C. Elwood,.....	14	17	31	19	18	37	1st Cl. M.								
1st Sergt. G. Simpson,.....	16	15	31	20	20	40	Sharps'r.								
Sergeant T. Ireland,.....	21	13	34	20	24	44	"							m	
" E. J. Boenisch,.....	14	13	27	18	14	32	Marks'n.								
Q.-M. Sgt. W. R. Wilson,.....	15	15	30	20	22	42	Sharps'r.								
Corporal J. F. Jones,.....	19	17	36	16	15	31	Marks'n.								
" W. H. Hyland,.....	13	19	32	18	20	38	1st Cl. M.								
" S. C. Ireland,.....	15	16	31	22	23	45	Sharps'r.							m	s
Private Britto, S. R.,.....	13	19	32	15	16	31	Marks'n.								
" Gorham, J. W.,.....	16	18	34	20	21	41	Sharps'r.								
" Hendrick, G. A.,.....	13	13	26	13	15	28	Marks'n.								
" McAvoy, A.,.....	14	19	33	17	17	34	1st Cl. M.								

Company E.

Captain J. Sheridan,.....	14	16	30	18	16	34	1st Cl. M.,								1st c. m.
1st Lieut. J. Donnelly,.....	13	19	32	17	17	34	"	m	m						s
2d " J. J. Glennon,.....	15	19	34	18	17	35	"			m					m
Sergeant J. C. Ivers,.....	21	20	41	14	14	28	Marks'n,			m					s
" J. Schaeffer,.....	16	15	31	15	13	28	"								
Corporal J. Coates,.....	21	21	42	16	16	32	"								s
" E. J. Kimmerlen,.....	20	22	42	18	18	36	1st Cl. M.,		m						m
" J. Hunt,.....	14	15	29	13	13	26	Marks'n.								
" T. Maloney,.....	20	16	36	13	15	28	"								
Private Butler, A. D.,.....	20	18	38	14	14	28	"								
" Carter, J.,.....	17	19	36	13	13	26	"			m					
" Ireland, W. T.,.....	19	16	35	16	13	29	"								
" Kenney, M.,.....	23	16	39	15	14	29	"								
" Long, F.,.....	23	19	42	18	13	31	"								1st c. m.
" Pender, J.,.....	21	20	41	19	20	39	1st Cl. M.,								1st c. m.
" Suckley, C. H.,.....	21	21	42	17	19	36	"								1st c. m.
" White, J. H.,.....	21	17	38	15	14	29	Marks'n.								

Company F.

Captain A. A. Betts,.....	20	18	38	18	21	39	1st Cl. M.,	m					m	m	s
1st Lieut. H. Matheis,.....	18	21	39	20	22	42	Sharps'r,					m	s	m	s
Corporal W. B. Warner,.....	19	18	37	18	15	33	Marks'n,						s	m	1st c. m.
" H. D. Cornell,.....	19	20	39	19	19	38	1st Cl. M.,					m	s	m	1st c. m.
" H. Van Ness,.....	21	18	39	19	18	37	"							m	1st c. m.
" F. H. Rose,.....	14	15	29	16	15	31	Marks'n.								
" E. G. Aiken,.....	17	18	35	20	20	40	Sharps'r,								
Private Devine, D. J.,.....	18	14	32	18	18	36	1st Cl. M.								m
" Hartung, H. L.,.....	23	16	39	19	16	35	"								
" Merritt, G. R.,.....	19	17	36	19	15	34	Marks'n.								
" Pratt, F. E.,.....	13	13	26	17	16	33	1st Cl. M.								
" Stevenson, W. M.,.....	14	14	28	16	15	31	Marks'n.								
" Sullivan, W. E.,.....	21	19	40	18	15	33	"								

Company G.

NAMES.		2d Class.		Total.	1st Class.		Designation.	Previous Qualifications.									
		300 Yds.	400 Yds.		200 Yds.	500 Yds.		Total.	1886.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Captain	F. R. Nash,.....	15	13	28	21	22	43	Sharps'r.									
1st Lieut.	G. L. Stevens,.....	22	13	35	20	22	42	"									
1st Sergt.	S. H. Smith,.....	17	10	27	19	22	41	"									
Sergeant	C. S. Cronk,.....	18	10	28	19	21	40	"									
	J. V. Scofield,.....	13	14	27	16	17	33	Marks'n.									
Q.-M. Sgt.	H. M. Erikson,.....	15	14	29	16	17	33	"									
Corporal	C. H. Dickens,.....	14	11	25	15	15	30	"									
"	E. N. Beach,.....	15	11	26	18	22	40	Sharps'r.									
"	C. H. Gosha,.....	15	15	30	20	20	40	"									
Private	Dunham, S.,.....	15	13	28	16	16	32	Marks'n.									
"	Roland, C. M.,.....	16	12	28	16	17	33	"									
"	Scully, J. J.,.....	16	11	27	13	14	27	"									
"	Smalley, L. E.,.....	13	15	28	20	20	40	Sharps'r.									
"	Van Wert, H. C.,.....	14	15	29	16	17	33	Marks'n.									
"	Whitehead, W. A.,...	17	13	30	16	16	32	"									

Company I.

Captain E. Finn,.....	23	16	39	21	21	42	Sharps'r,	..	m							
Corporal D. E. Marson,.....	14	18	32	16	14	30	Marks'n.									
Private Canty, T. J.,.....	17	14	31	15	14	29	"									

Company K.

Captain E. Morehouse,.....	23	17	40	19	19	38	1st Cl. M.,	m	m	m	..	s	s	s	s	s
1st Lieut. S. Judson, Jr.,.....	19	20	39	17	20	37	"	..	..	m	..	s	s	..	s	s
2d " I. W. Judson,.....	22	21	43	19	19	38	"	m	m	..	..	s	..	..	s	s
1st Sergt. W. B. Bristol,.....	23	13	36	18	16	34	"	..	..	m	..	..	..	..	s	s
Sergeant C. K. Stagg,.....	15	17	32	16	14	30	Marks'n.									
" W. H. Fryer,.....	20	22	42	17	15	32	"	..	m	m	..	..	..	..	1st c. m.	
Corporal G. T. Jewell,.....	15	16	31	17	14	31	"	..	..	..	..	..	..	..	m	m
" F. F. Perry,.....	17	18	35	17	14	31	"	..	..	..	..	..	..	..	m	m
" G. R. Fryer,.....	24	18	42	16	15	31	"	..	..	..	..	..	..	..	m	m
Private McQuillan, J. R.,.....	13	15	28	13	16	29	"	..	..	..	..	..	..	..	m	m
" McQuillan, T. H.,.....	13	15	28	18	15	33	"									
" Sammis, J. V.,.....	15	16	31	18	16	34	1st Cl. M.									
" Smith, F. L.,.....	17	16	33	18	15	33	Marks'n.									
" Sniffen, C. J.,.....	14	15	29	16	14	30	"									

Fourth Machine-Gun Platoon.

2d Lieut. Edwin F. Hall,.....	17	16	33	18	20	38	1st Cl. M.,	..	m	m	..	m	s	s	s	s
Sergeant E. Nothnagle,.....	22	21	43	20	21	41	Sharps'r,	..	..	..	..	..	..	..	s	s
" E. B. Vinton,.....	18	22	40	21	16	37	1st Cl. M.,	..	m	..	..	..	..	..	s	s
Corporal F. S. Edwards,.....	16	15	31	18	19	37	"	..	..	..	..	..	..	..	m	m
" C. F. Coester,.....	17	18	35	21	20	41	Sharps'r,	..	..	..	..	..	..	..	1st c. m.	
Private Botsford, G. H.,.....	16	14	30	18	17	35	1st Cl. M.,	..	..	..	..	..	..	..	s	s
" Carstesen, H.,.....	19	20	39	21	20	41	Sharps'r,	..	..	..	..	..	..	..	s	s
" Hitchcock, A.,.....	17	21	38	21	21	42	"	..	..	..	s	s	s	s	s	s
" Nichols, H.,.....	20	22	42	22	24	46	"	..	m	m	..	..	..	..	s	s

FIFTH BATTALION.

Company A.

NAMES.	2d Class.			1st Class.			Desig- nation. 1886.	Previous Qualifications.							
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Captain D. S. Lathrop.....	19	16	35	20	20	40	Sharps'r,	..	..	..	m	m	..	m	1st c. m.
1st Lieut. D. Tilghman.....	18	10	28	15	17	32	Marks'n,	..	..	..	..	..	..	..	m
Q -M. Sgt. L. J. Waters.....	18	18	36	13	19	32	"	..	..	..	..	..	..	..	m
Sergeant A. Van Dyne.....	13	17	30	13	16	29	"	..	..	..	..	..	..	..	m
" A. Brown.....	15	16	31	19	13	32	"	..	..	..	m	m	m	m	m
Private Moore, J. C.,.....	20	19	39	20	19	39	1st Cl. M.,	..	..	..	..	s	..	..	1st c. m.

By order of the Commander-in-Chief.

FRED'K E. CAMP

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 5. }

ADJUTANT-GENERAL'S OFFICE,

HARTFORD, March 22, 1887.

I. So much of the report of Lieutenant C. A. L. Totten, 4th U. S. Artillery, who was detailed by the War Department to inspect the encampment of the Connecticut National Guard, at Niantic, in August last, as relates to the discipline, instruction and drill of the command, is published herewith for the information of all concerned. The report shows such careful observation, and such just and intelligent criticism, that it is especially commended to the Connecticut National Guard, for their careful consideration and instruction.

FORT ADAMS, NEWPORT, R. I., Sept. 30, 1886.

THE ADJUTANT-GENERAL UNITED STATES ARMY,

Washington, D. C.:

SIR,—In compliance with Special Orders No. 184, current series, from Headquarters of the Army, dated Adjutant-General's Office, Washington, D. C., August 10, 1886, and accompanied by letter of instructions, under which I acted, I have the honor to submit the following report of my inspection of the annual encampment of the National Guard of Connecticut, held at Niantic, Connecticut, August 23 to 28, inclusive:

* * * * *

The time between reveille and retreat was completely taken up with drills and ceremonies, so that merely as a spectator I was quite exhausted at the close of each successive day.

All of the work and routine seemed to be cheerfully done. I heard but little grumbling, and even this appeared to be always due to misinformation and over-anxiety, and found that almost every one with whom I came in contact, was working earnestly, according to his light and ability, toward the perfection of the command. Of course I noticed here and there minor tactical differences, which will in time correct themselves, and some glaring faults, a hold of which the State of Connecticut must take a firm grasp in order to eradicate them and raise the standard of active efficiency of its Guard.

I have not felt called upon to descend into the particulars of graduating the several regiments and organizations which came beneath my notice. This lies particularly within the province of the Inspector-General of the State, and is entirely internal to Connecticut.

I noticed a wholesome rivalry throughout the entire command, and was not long in perceiving that the competition for excellence descended into almost every incident of camp life. Each regiment, so far as I could judge, excelled in some particular point of drill, marching, internal police, discipline, steadiness, adherence to the State code, appearance, manual, etc. They all did well, and better than this, improved daily. The close system of marks pursued by the Inspector-General of the brigade, whose ultimate summing up grades the various organizations, appears to me to be all that is requisite for the self-information of those concerned, and if they severally exercise themselves in correcting their deficiencies, as annually marked down and published, the ultimate result among men in such close competition cannot but render even their graduation a very difficult task in future encampments.

* * * * *

PERSONNEL, DISTRIBUTION, RECRUITING.

The *personnel* of the command was generally very fine. The troops from the large cities and towns were naturally better "set up" than those from the more rural districts, but the entire rank and file seemed to be of the very best material, young, active, willing, athletic, and intelligent. I mixed in among them freely enough, though always "on duty," to fully sound the "metal" of the command, and found it always responsive and eager for information. I took occasion once or twice, to very sharply criticise individuals, and here and there unmilitary occurrences, doing so in the interests of discovering the true *animus* of the men about me, and I never once saw the least disposition to resent, answer back, or question. I am therefore completely satisfied that those who enlist as National Guardsmen accept the whole obligation of a soldier, and merely look upwards for leaders and commanders. Where they find these wanting I doubt not that these men who carry the elective franchise into their very military organization, are American enough to chafe and worry in the traces till they obtain a master in whom they can trust to the very limits of his sphere. I could not help noticing the natural balance which seemed to have been struck between rank and age among the company officers. While a small proportion of the captains appeared to be old enough to have seen some service in the rebellion, I noticed few, if any, of the lieutenants who could have done so; they were mostly young men, and as a class did not exhibit that unfortunate disparity between rank and age which now so hampers the active efficiency of the Regular Army. But in the higher commissions of this Guard the very reverse still seems to maintain its suitable ascendancy, service and experience having,

to a large extent, undoubtedly been the criterion by which these grades were filled, so that age justly lends its credence to the dignity and command so essentially inherent in these higher offices.

* * * * *

CEREMONIES, DRILLS.

With the ceremonies I was most favorably impressed, and saw in them a steady improvement as the encampment gained in age. Brigade dress parades took place each afternoon, and were beautifully executed. They were immediately followed by regimental ones, which were equally well performed—quite as well so as they are in the Regular Army. Here and there I noticed some differences in minor tactical construction, but no graver ones than I meet with at Army posts. They were generally founded in personal equations, and modified themselves during the brief period of comparison allowed by the encampment. I noticed no radical errors after the first day. The manual of arms was often perfect, the forming of lines prompt, and the steadiness of the men notably commendable. I saw no battalion inspections, no “setting up” drills, and no brigade drill. It would have been well to have omitted one or two brigade dress parades, and substituted in their stead the ceremonies of regimental inspection and individual reviews and musters, and even to have escorted the colors at least once. Company drills took place once daily, and battalion twice. I have already criticised them. I saw no systematic battalion skirmish drill. A part of the last two or three company drills was devoted to skirmishing. This, as a rule, was not accurate, without spirit, disorganized, and poorly executed. The best drill of this description was given by a company of the colored battalion, whose captain directed it himself with the bugle. The men of this company understood the drill, responded promptly and tactically, and showed a battlefield independence. Throughout the brigade the men were hard worked, but cheerful withal and always willing. In certain regiments, however, there was such a continual “buzz” of unchecked conversation, that I could not but wonder how on earth commands were ever heard at all. This was the fault of a very large percentage of poor company officers, and file closers, and was demonstrated to be so at the company drills, which, upon the whole, were the poorest drills I saw. But there was continual improvement up to the end of camp, though in an elective system there should be little theoretical room for even this criticism. I have no substitute to offer for such a system for obtaining officers, but am convinced that if it continues open to such objections one must be found. It is so different from Regular Army methods, and from the purely business procedure of these same men in their capacity as citizens amidst their various monetary avocations, that I simply wonder at its continued life. It seems to be forgotten that so soon as these troops are mustered into Government or actual service, *lives* not dollars will be the stock in trade. Proficiency, fitness, and merit will then be the sole criterions by which warrants and commissions are held and all new appointments made. However, it is but just to remember that sixty-three of the officers of this brigade were new to their positions, and were actually examined for them during the encampment. Nevertheless it was a lack of *force* rather than tactical information that I criticise, though I gained the impression that the officers seemed to fit themselves more for their *own* special tactical duties than for those of any superior grade or all grades which the exigencies of service might have forced upon them.

DISCIPLINE.

This was generally excellent ; but when analyzed down to its roots, was not so. An apology is usually made where laxity of discipline is noticed in national guard organizations, based upon the essential difference of their circumstances from those surrounding similar regular organizations ; but this is begging the question, and there are notable exceptions within the guard itself which disprove the fact. I do not recognize the impossibility of obtaining true discipline in the National Guard, for I am personally familiar with the very elements which go to form it, have commanded it for years, and know it can be moulded like clay, and is willing to be shaped.

SALUTING.

This fundamental principle of discipline, which when thoroughly inculcated and properly understood, so fosters the higher grades of unquestioning military obedience, was almost wholly neglected at Camp Smith. Not more than two per cent. of the entire rank and file pretended to recognize an officer or a shoulder-strap. One afternoon I walked through the entire length of the company streets of the whole brigade ; in the Second Regiment I did not receive a single recognition ; in Company I, of the Third Regiment, I obtained the first proper salute, from a soldier who arose, stood attention, and recognized my rank awkwardly, but properly. I spoke to and complimented him. I found the insignia of a commissioned officer recognized among the colored troops better than anywhere else, and believe that the elements of true subordination were sown through this small and earnest battalion upon ground more deeply furrowed at home by proper instruction, than in any other body of men represented in the encampment. In the First and Fourth Regiments I got here and there (one or two per company) a recognition. I tested the matter for my personal satisfaction by speaking once in a while to a soldier who had not saluted, to try the spirit of the men about me, and found that it was only ignorance, lack of instruction, and the more general failure of the officers throughout the command to enforce the recognition on the spot. It was a common thing (so glaring was this ignorance or neglect of the fundamental principles of military courtesy) to be passed by private soldiers with pipes and cigars in their mouths, blouses unbuttoned, hands in their pockets, and staring countenances, even upon the general parade ground, and as often in the town of Niantic. But here, too, there was considerable improvement toward the end of the encampment, so that the percentage of recognition may, perhaps, have been raised to ten per cent. It certainly did not rise above this, and I noticed that it improved particularly in the Second Regiment, which I had criticised quite severely the second day. I do not believe there was any intention of insubordination manifested in this matter ; quite the reverse ; it wore the garb of ignorance and non-instruction only. Nor did I notice any display of disobedience or direct insubordination while in this camp.

GUARD DUTY.

The large guards at Camp Smith were severally mounted by the adjutants of the organizations which furnished them. There were regimental guard mountings only, not brigade, and each one complete in *personnel*. The ceremony of guard mounting was generally above important tactical criticism after the second day of encampment, taking into consideration that fully one-third of the brigade had never been in camp before, and that the guards themselves were almost wholly composed of this

raw element. They were new to almost any duty, and wholly so to this. But this ceremony is essentially an officers' drill, and those charged with it mastered the circumstances as well as regulars could have done. Special guard posts were assigned to the several regiments, and along the various fronts of the encampment each main guard ranged its own line of sentinels. The object was to gain the maximum of instruction. A brigade officer of the day represented the commanding officer, and through him the subordinate officers of the day were made responsible to the brigade commander. The whole line of guards became *de facto* a brigade guard. The conception was excellent, and had the subordinate officers attended to their several duties and been duly familiar with them, no criticism, perhaps, would have been possible. As it was, however, this feature of the encampment showed a decided want of true conception, and was so badly done as to afford no protection whatsoever to the command that lay behind the chain of sentinels. I am convinced that I could have penetrated the camp easily, and almost anywhere, with a body of armed men. Once on post, and left to themselves, the sentinels appeared to be far beyond their depth, awkward, automatic, without confidence, and either wrongly instructed or else utterly without any due appreciation of their duties, responsibilities, and inherent authority. To see an insignia of rank saluted was a rarity, and to see it properly done the exception of an exception; challenging was a farce, and the countersign useless. Yet all of these men were willing and eager for instruction; they did their very best. It was instruction and experience only that they lacked; it should have been begun at home, for it is manifest that if so important a duty be left (for all grades) until the moment of need, it cannot be even shadowed in its true proportions, and must be what it was, the mere ghost of what it might have been.

Guard duty is the nearest approach to really active duty the National Guardsman performs in camp, and yet it is the first one he is liable to be placed upon in time of public excitement at home. Surely a few drills per year can be spared by men who generally drill so well in an honest preparation for those serious calls which it is well known may come at any moment. I doubt not that voluntary detachments would willingly guard the armories night after night, until proficient in all the details of sentinel's duty. I am informed by officers who have visited other State camps that organizations do exist that have already appreciated the importance of this duty, and have become remarkably proficient therein. Connecticut is not so; and as this is a radical deficiency, it is one which merits serious consideration. At the request of the brigade commander, I spent the entire fourth day of the camp instructing the guards and sentinels in their several duties, and almost the entire night in visiting the men and guards on duty, making grand rounds, inspections, etc. I found all grades wide awake for information, and was fully repaid for my labors. There was a marked improvement; though single-handed, I was very much handicapped, and on the last night of the encampment I was pleased to find sentinels and whole guards which did their duty noticeably well. Yet upon this very night there was one regimental guard which, from its commissioned officers down, had apparently withdrawn themselves, and were neglecting every single duty with which they had been charged. A word to the wise is sufficient. I am satisfied that this woeful deficiency can be eliminated, and I would earnestly recommend that special attention be paid this winter, while at home, to rigid sentinel duty, so that its performance may, at the next annual encampment, excite a word of worthy praise from whomsoever may have the pleasure of inspecting it in behalf of the General Government.

Each soldier of the brigade should be furnished with a printed slip containing brief instruction in all his duties as a sentinel, and should learn them by heart and head. It needs both theory and practice, and every grade of regimental officer should know the whole duty of every grade, both from tactics and their own code. Armory drills in simple guard mounting should be succeeded by practical drills on post with small detachments, night after night, and if all concerned in each company will give it due attention, a radical deficiency will soon become obsolete.

SIGNALING.

Considerable attention was paid to this important subject. The new Army and Navy code was adopted some three weeks before entrance into camp, and about twelve per cent. of those instructed were already able to send and receive ordinary messages with the flag at its opening, and probably double that number ere the encampment ended.

* * * * *

GATLING-GUN SERVICE.

To each of the four regiments of Connecticut National Guard there is attached a section of Gatlings, calibre .45 of good but now somewhat old pattern. They are very well drilled in the whole manual of the piece and in field manœuvres, and are manifestly an important factor in the State armament. These detachments are under the command of lieutenants, and are uniformed as artillerists. In ceremonies they parade upon the left, action front, of their respective regiments, and at battalion drills act with some latitude and independence, according to the nature of the general movement, or else are detached for special purposes. Besides these regimental sections a regularly organized flying battery of four to six pieces might yet prove its value inestimable to this or any other State.

LIGHT ARTILLERY.

There is but one battery (A) in the State. It is mounted but two or three times a year, and thus with horses does not have more than ten days' annual drill on the average. This being considered, its proficiency is remarkable. There was rather too much fast gait and some loss of distance and interval in its drill, which the foregoing circumstances seem to explain. With the brigade inspector I made a mounted inspection of this battery, as much for drill purposes for them as for special investigation. It was in good condition, and the officers and men seemed to understand their duties. At my request the captain put the cannoneers through the manual of the piece, by hand to the front and rear, ready, etc. There was a lack of snap, but withal, in the foot drill proper, a good knowledge of their duties.

The expense of artillery maintenance renders it a very difficult arm of the service to criticise; and in attempting to keep up even a single battery, Connecticut is ahead of her proportional share. The horses seemed well groomed and cared for; a number of them were the private property of the men, but were hired for the encampment. The officers appeared zealous, and must have been proficient to have brought the mounted drills up to their present standpoint in so short a time.

There is no cavalry in the Connecticut National Guard.

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GENERAL OBSERVATIONS AND CRITICISMS.

There were too many men excused from each of the several duties and ceremonies. These men loafed about as merely unmilitary spectators at all brigade and regimental dress parades and drills. This should not have been allowed, as they were not only out of place but in the way. I saw this corrected in one instance, where just previous to the parade of a regiment a truant soldier was arrested on the general parade-ground, and made to join his company — a proceeding which impressed me as one of the most military and beneficial things I had ever seen in the National Guard. I notice that a small percentage of men “cut” the roll-calls and drills, hiding in the rear of the tents, etc. Punishment in some form or other would correct this evil. The guard was continually in full dress, much to its inconvenience and inefficiency. The few sentinels about headquarters were properly in full uniform, but I am convinced that better work would have resulted had the body of the guard been allowed to wear fatigue so soon as mounted. One relief — the one just off post — was always allowed to go to camp for two hours. This seemed short-sighted, especially in a camp of instruction, in which sentinel and guard duty need so much attention. It resulted in these men being continually behindhand in reporting back to the guard tents; nor did those not on post appear to be under any instruction while awaiting their tours of duty. Very little attention seemed to be given to the selection of special sentinels for special duties. Setting-up drill seemed to have been pretty generally neglected at home, and was not attended in to camp, although fully one-third of the command were recruits. While the manual of arms was performed splendidly on parade, it was carelessly and improperly executed by independent sentinels on post, and at the formations of guards and reliefs, as well as on company and battalion drills. I was passed by many reliefs and detachments under command of non-commissioned officers, but never once saluted properly; generally no salute was given, and almost always when one was attempted it was erroneously given, and with such a lack of confidence as made it of little value either to the recipient or giver.

Provost service in the town of Niantic was fairly good, but, as a rule, officers seemed loath to exercise their full power as men actually “on duty” under State law and with full police authority to quell disturbances at their very inception. I think the State would find it advantageous to raise a high board fence for at least 100 yards on each side of the southwest angle adjoining the main entrance, and provide a movable obstruction across the road, so as to impede egress and ingress after taps. This, and a substantial guard-house, with a few cells for that particular point, would, as the camp is in theory permanent, greatly facilitate the arduous duties of the detachment located there.

As particular instances of the noise after taps, I would remind the National Guard of Connecticut that a shot fired at night should have alarmed the whole command and brought every guard to arms. Such shots were fired several times in the camp without so doing. They should, at least, have subjected the offenders to summary punishment. If the forty-first article of war bears so severely upon an officer, how supremely unmilitary must it be in a soldier to commit any act that will unnecessarily alarm a camp. This and the occasional blowing of horns and loud shouts by groups of men after taps, particularly the last night of the encampment, might have given a very wrong impression to a stranger of the true spirit which actually did

control the large body of men present. That these matters were not peremptorily stopped by those on the spot, and the offenders immediately given up to punishment and example, must have been the fault of non-vigilant company officers, for they alone could reach their locality at once. It is no excuse that the last night of such an encampment is given up to jollity. Latitude was generously given by the brigade commander in the extension of hours; and in the permission of a proper celebration by fireworks, etc.; but the occurrences to which I refer were abuses of the privileges, and if persisted in would have justified the immediate disbandment and ejection of the company in which they occurred unchecked. They were rare instances, and were condemned by 99 per cent. of the brigade.

* * * * *

CONCLUSION.

I am deeply indebted to the United States Government for the professional pleasure derived from this visit of inspection. It afforded me an opportunity of seeing more troops in camp and under more varied military instruction than I have ever done before, and of becoming personally acquainted with the magnificent material close at the Government's hand, and out of which an army can be most readily created. No regular officer can be accredited to one of these State encampments and perform his duty with his eyes open to the future and his memory awake to our past military history without becoming enthusiastic. To the generation of younger officers the late war is simply history. But I have yet to hear of a generation of men who have escaped the clash of arms, nor do I doubt that mine will hear it. I cannot, then, but feel a deep concern in all that strives toward the solution of our military problem, and I opine that the General Government has never taken so important a step as this one, which will bring its regular army and its first national reserves into cordial acquaintance and more intimate accord.

I am, sir, very respectfully, your obedient servant,

C. A. L. TOTTEN,

First Lieutenant Fourth United States Artillery.

II. With a view to remedying in some measure the evils to which attention is called by the above report, it is hereby ordered :

1st. That until the close of the present drill season, not less than two drills each month be devoted to instruction in guard duty, by posting and relieving sentinels, and especially in the duties of sentinels on post.

Captains will also establish recitations for their officers and non-commissioned officers in guard duty, the most important of all duties a non-commissioned officer or soldier can be called upon to perform.

2d. One drill each month will be devoted to skirmish drill.

Attention is especially called to saluting. This is so simple and so plain a duty, that it is surprising that it is to so great a degree neglected, except upon the supposition that it is considered humiliating. One of the most distinguished officers of the U. S. Army says of it that "it is not an act of degradation but a courtesy which no true soldier who represents all the elements of a gentleman will ever try to avoid."

By careful attention to the duties above named, they can be learned by the entire command, at least to such a degree as to show at the next encampment a marked

improvement over any former one. Officers who are to appear for examination are cautioned to give guard duties careful study, as especial attention will be paid to them in future examinations. It is probable that an examination will soon be ordered for officers already appointed, which it is intended shall be more rigid in all matters than heretofore.

This order will be read at least twice to each company of the C. N. G.; copies will be furnished to each officer, and the extracts from the report of Lieutenant Totten will be posted on bulletin boards of each company.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 6. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, March 22, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since February 19, 1887 :

RESIGNED AND DISCHARGED.

SECOND REGIMENT.

First Lieutenant Charles H. French, Assistant Surgeon, March 3, 1887.

FOURTH REGIMENT.

Major George F. Lewis, Surgeon, February 21, 1887.

PROMOTED AND APPOINTED.

FIRST REGIMENT.

First Lieutenant John Hickey of Manchester, appointed Captain Company G, with rank from February 7, 1887, *vice* Wetherell, resigned.

Second Lieutenant Charles L. Bissell of Manchester, appointed First Lieutenant Company G, with rank from February 7, 1887, *vice* Hickey, promoted.

Corporal William H. Schildge of Manchester, appointed Second Lieutenant Company G, with rank from February 7, 1887, *vice* Bissell, promoted.

SECOND REGIMENT.

William H. Newton of Wallingford, appointed Paymaster with rank of First Lieutenant from February 9, 1887, *vice* Dillenbeck, resigned.

Second Lieutenant Charles G. Miller of New Haven, appointed First Lieutenant Company B, with rank from February 16, 1887, *vice* Widman, Jr., resigned.

Sergeant George M. Schaffner of New Haven, appointed Second Lieutenant Company B, with rank from February 16, 1887, *vice* Miller, promoted.

First Lieutenant Charles C. Ford of New Haven, appointed Captain Company F, with rank from February 16, 1887, *vice* Lee, promoted.

Second Lieutenant Harvey S. Munson of New Haven, appointed First Lieutenant Company F, with rank from February 16, 1887, *vice* Ford, promoted.

Sergeant John T. Gill of Orange, appointed Second Lieutenant Company F, with rank from February 16, 1887, *vice* Munson, promoted.

FOURTH REGIMENT.

George L. Porter of Bridgeport, appointed Surgeon, with rank of Major from March 8, 1887, *vice* Lewis, resigned.

Second Lieutenant Charles H. Gibner of Bridgeport, appointed First Lieutenant Company B, with rank from February 8, 1887, *vice* King, resigned.

First Sergeant Garrie P. Sanger of Bridgeport, appointed Second Lieutenant Company B, with rank from February 8, 1887, *vice* Gibner, promoted.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of February, 1887, based on the drill reports for the month:

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Mch. 1, 7.00 A.M.	3	58	89.78	A.	Mch. 2, 2.00 P.M.	4	67	96.02
B.	Mch. 3, 12.00 M.	3	66	97.48	B.	Mch. 3, 9.30 A.M.	4	63	91.13
D.	Mch. 3, 12.00 M.	4	65	95.41	C.	Mch. 1, 2.00 P.M.	4	65	98.49
E.	Mch. 1, 1.00 P.M.	4	63	91.66	D.	Mch. 7, 9.30 A.M.	4	67	98.51
F.	Mch. 1, 9.00 A.M.	4	61	91.55	E.	Mch. 1, 9.30 A.M.	4	67	95.52
G.	Mch. 2, 1.00 P.M.	4	63	91.66	F.	Mch. 1, 8.00 A.M.	4	58	90.35
H.	Mch. 1, 9.30 P.M.	4	67	95.02	G.	Mch. 2, 9.30 A.M.	3	63	93.78
K.	Mch. 1, 10.00 A.M.	4	64	94.34	H.	Mch. 1, 9.30 A.M.	4	59	88.11
1st M.-G. Plat.					I.	Mch. 2, 8.00 A.M.	4	60	90.96
	Mch. 1, 7.00 A.M.	4	9	99.07	K.	Mch. 1, 8.00 A.M.	4	60	94.85
					2d M.-G. Plat.				
						Mch. 4, 1.30 P.M.	4	9	96.30
Figure of merit of Regiment, 93.997					Figure of merit of Regiment, 94.002				

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Mch. 1, 9.00 A.M.	4	67	89.55	B.	Mch. 1, 9.00 A.M.	4	60	92.07
B.	Mch. 1, 10.00 A.M.	4	49	84.92	C.	Mch. 2, 5.00 P.M.	4	64	92.26
C.	Mch. 1, 5.00 P.M.	4	49	80.84	D.	Mch. 2, 9.00 A.M.	4	67	90.55
D.	Mch. 1, 7.00 A.M.	4	58	88.63	E.	Mch. 3, 3.00 P.M.	4	60	85.96
E.	Mch. 1, 12.00 M.	4	51	86.16	F.	Mch. 1, 4.00 P.M.	4	52	84.20
F.	Mch. 1, 7.00 A.M.	4	50	78.88	G.	Mch. 1, 9.00 A.M.	4	66	96.47
G.	Mch. 1, 5.00 P.M.	4	56	79.65	I.	Mch. 2, 1.00 P.M.	5	60	92.07
I.	Mch. 1, 7.00 A.M.	4	62	88.36	K.	Mch. 1, 11.00 A.M.	4	55	84.33
3d M.-G. Plat.					4th M.-G. Plat.				
	Mch. 1, 9.00 A.M.	4	8	95.26		Mch. 1, 11.00 A.M.	4	9	100.00
Figure of merit of Regiment, 85.81					Figure of merit of Regiment, 90.88				

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Mch. 6,	4	58	76.56	1st	Mch. 1,	2	32	63.10
B.	Mch. 2,	4	63	82.35	2d	Mch. 2,	4	39	82.30
C.	Mch. 2,	5	61	84.45					
Figure of merit of Battalion,				81.12	Figure of merit of Battery,				72.70

III. Company commanders are hereby reminded that drill reports (which are made on honor) are required to be absolutely correct and complete in all particulars. Inaccuracy and carelessness on the part of some company commanders have caused much delay in the publication of this order.

IV. Private Peter T. Keefe, Company G, Second Regiment C. N. G., is hereby announced as a deserter, for which offense he has been dishonorably discharged from the military service of the State.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 7. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, March 30, 1887.

I. The following Act of the General Assembly, passed January session, A. D. 1887, is published for the information of the Connecticut National Guard.

CHAPTER XXVIII.

An Act amending an Act relating to the Militia.

Be it enacted by the Senate and House of Representatives, in General Assembly convened:

SECTION 1. Section four of chapter two, title ten of the general statutes (page 114), as amended by section two, chapter one hundred and nine, public acts of 1883 (page 287), is hereby amended by inserting in the fifteenth line, after the word "orderlies," the words "and one trumpeter."

SEC. 2. Section five of chapter two, title ten, of the general statutes (page 114), as amended by section three, chapter one hundred and nine, public acts of 1883 (page 287), is hereby amended by inserting in the second line, after the word "companies," the words "a machine-gun platoon," and by inserting in the thirteenth line, after the word "hospital-steward," the words "a chief trumpeter," and in the

twentieth line by inserting, after the word "quartermaster-sergeant," the words "a signal-sergeant, a chief trumpeter."

SEC. 3. Section six of chapter two, title ten, general statutes (page 114), as amended by section four, chapter one hundred and nine, public acts of 1883 (page 288), is hereby amended by inserting in the third line, after the word "corporals," the words "one trumpeter," and by inserting in line four, after the word "privates," the following: "Each machine-gun platoon shall consist of one second lieutenant, mounted, and such number of non-commissioned officers and privates as the commander-in-chief may from time to time prescribe. The commanding officer of each platoon shall hereafter be nominated by the members of the platoon, as provided in section eight, chapter two, of this title. Each platoon shall be provided with one or more machine-guns. The uniform and equipment of officers and men shall be that of light artillery. The platoons will be located respectively in the cities of Hartford, New Haven, New London, and Bridgeport, and they shall bear the same numerical designation as the regiment to which they belong. To each machine-gun there shall be allowed two horses, and there shall be paid for each horse used on parade a sum not exceeding three dollars per day, and forage or commutation therefor;" and also by adding to said section the words "one of whom shall be appointed and warranted, by the regimental commandant, chief musician, with the rank of sergeant."

SEC. 4. Section five of chapter six, title ten of the general statutes (page 122), is hereby amended to read: The commandants of each regiment, the battalion, each company of infantry and platoon of artillery, shall be allowed fifty dollars a year, and the commandant of each machine-gun platoon twenty-five dollars a year, as compensation for the care of the State property in his possession, to be paid by the quartermaster-general after his annual inspection of such property, if it be found in good condition, deducting, however, the value of all such property not accounted for.

SEC. 5. The present organizations known as the first, second, third, and fourth machine-gun platoons of the first, second, third, and fourth regiments, Connecticut National Guard, with the officers and men thereof, are hereby continued under the provisions of section three of this act.

SEC. 6. This act shall take effect from date of approval.

Approved, March 22, 1887.

II. In accordance with above law, changes in the organization of the Connecticut National Guard will be effected as follows, to date from April 1, 1887:

Brigadier-General Charles P. Graham, commanding Connecticut National Guard, will appoint and warrant a brigade trumpeter, with the rank of sergeant.

The commandants of the four regiments of infantry, C. N. G., will each appoint and warrant on his non-commissioned staff a chief trumpeter, with the rank of sergeant, and will appoint and warrant in the regimental band one member as chief musician, with the rank of sergeant.

The commandant of the Fifth Battalion, C. N. G., will appoint and warrant on the non-commissioned staff a signal sergeant and a chief trumpeter.

Each commandant of companies of infantry will enlist or appoint a trumpeter, who will be reported on drill reports and returns with the musicians.

III. The non-commissioned staff of each regiment of infantry, Connecticut

National Guard, will hereafter consist of a sergeant major, a quartermaster-sergeant, a commissary sergeant, a hospital steward, a chief trumpeter and a drum-major.

The non commissioned staff of the Fifth Battalion, C. N. G., will comprise a sergeant-major, a quartermaster-sergeant, a signal-sergeant, a chief trumpeter, and a drum-major.

Companies of infantry, C. N. G., will consist of one captain, one first lieutenant, one second lieutenant, one first sergeant, one quartermaster-sergeant, four sergeants, eight corporals, one trumpeter, two musicians (drummers), and not more than forty-eight (48), nor less than thirty-two (32) privates.

The maximum membership of companies of infantry, in accordance with law and orders, will hereafter be sixty-eight (68), and the maximum number (at and below which a company ceases to be effective under the law), fifty-two (52).

IV. The machine-gun platoons now in service will continue with their present existing organization. The membership of each platoon will be one second lieutenant (mounted), two sergeants, two corporals, and four privates. The status of the commanding officers will hereafter be that of line officer of their respective regiments, and vacancies in commanding officers will be filled as by law provided for companies of infantry.

V. The Quartermaster-General will hereafter allow and pay to each commanding officer of machine-gun platoons twenty-five dollars per year as compensation for the care of State property, dating from March 22, 1887.

VI. Paragraphs **2131** and **2158**, Article XXX, Regulations, Connecticut National Guard, 1884 [G. O. No. 18, 1886], are hereby revoked, and the following substituted therefor :

2131. *For a Drum-Major.*— Three bars and an arc of three bars, with two crossed batons worked with white silk, each two and five-eighths inches long, in centre.

BRIGADE ORDERLIES AND TRUMPETER.

2158. Brigade mounted orderlies and trumpeter will wear the same uniform as enlisted men of Light Artillery, except that color of facings and piping on uniform dress coat, chevrons, trouser stripes, plume, helmet cord and bands, will be yellow.

VII. Article XXX, Regulations, Connecticut National Guard, 1884, as published G. O. No. 18, 1886, is hereby amended by inserting, in regular order, the following paragraphs :

2130 a. *For the Brigade Trumpeter.*— Three bars and an arc of three bars, with bugle in centre.

2131 a. *For a Chief Trumpeter (non-commissioned Staff of Infantry).*— Three bars and an arc of one bar, with bugle in centre.

2133 a. *For a Chief Musician (regimental band).*— Three bars and a bugle.

2133 b. *For a Signal-Sergeant (non-commissioned staff of battalion of infantry).*— Three bars and an arc of three bars ; with signal device in centre, same as for enlisted men detailed for signal duty [paragraph **2141**].

2140 a. *For a Trumpeter (company of infantry).*— A bugle.

By order of the Commander-in-Chief.

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 8. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, April 21, 1887.

I. An Examining Board for the examination of officers of the Connecticut National Guard, in accordance with law, will convene at this office on Wednesday, May 11th proximo, at 10 o'clock A. M., and will make return to this office of the name and rank of each officer examined and the result of such examination in detail.

The examination will be conducted in a thorough manner and strictly in accordance with Section 4, Article XXV, Regulations C. N. G., 1884; especial attention being given to guard duty.

II. The Board will consist of Brigadier-General Frederick E. Camp, Adjutant-General; Colonel William H. Tubbs, of New London; Major T. Attwater Barnes, of New Haven, and William H. Stowe, of New Haven.

III. The following officers are hereby ordered to appear before said Board for examination; Major Allen, Brigade Inspector, and the officers of the First Regiment on May 11th; other officers will hold themselves in readiness to attend the sessions of the Board at the call of the President thereof.

BRIGADE STAFF.

Major Alexander Allen, Brigade Inspector.

FIRST REGIMENT.

Captain George B. Newton, Captain John Hickey, First Lieutenant Henry E. Chapman, First Lieutenant Charles L. Bissell, Second Lieutenant Charles H. Patterson, Second Lieutenant Louis B. Hubbard, Second Lieutenant William H. Schildge.

SECOND REGIMENT.

Lieutenant-Colonel John B. Doherty, Major Frank T. Lee, Captain Charles C. Ford, First Lieutenant William H. Newton, Paymaster; First Lieutenant Charles G. Miller; First Lieutenant Harvey S. Monson, Second Lieutenant Daniel E. Fitzpatrick, Second Lieutenant George H. Wilkinson, Second Lieutenant George M. Schaffner, Second Lieutenant John T. Gill, Second Lieutenant Edward I. Williams.

THIRD REGIMENT.

Captain Thomas B. Linton, Captain James Moran, First Lieutenant William E. Pendleton, Quartermaster; First Lieutenant George M. Cole, Paymaster; First Lieutenant Frank P. Goff, First Lieutenant John F. Murray, First Lieutenant Irving E. Hill, Second Lieutenant Samuel Prince, Second Lieutenant Edward R. May, Second Lieutenant Fred. A. Fox.

FOURTH REGIMENT.

Major George L. Porter, Surgeon; First Lieutenant Charles H. Gibner, Second Lieutenant Garrie P. Sanger, Second Lieutenant John McGraw, Second Lieutenant William J. Phillips.

FIFTH BATTALION.

Second Lieutenant Charles E. Fuller.

By order of the Commander-in-Chief.

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 9. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, April 22, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since March 22, 1887 :

RESIGNED AND DISCHARGED.

BATTERY A.

First Lieutenant Edward M. Gillette, First Platoon, April 1, 1887.

FOURTH REGIMENT.

Second Lieutenant Irving W. Judson, Company K, April 13, 1887.

PROMOTED AND APPOINTED.

SECOND REGIMENT.

Sergeant Edward I. Williams of New Haven, appointed Second Lieutenant Company D, with rank from March 10, 1887, *vice* Parsons, resigned.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of March, 1887, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Apr. 1, 7.00 A.M.	5	65	97.98	A.	Apr. 2, 2.00 P.M.	4	67	97.01
B.	Apr. 2, 4.00 P.M.	4	66	97.48	B.	Apr. 4, 8.00 A.M.	4	64	92.78
D.	Apr. 1, 7.00 A.M.	5	65	95.41	C.	Apr. 1, 2.00 P.M.	5	67	99.50
E.	Apr. 1, 7.00 A.M.	4	66	96.98	D.	Apr. 1, 7.00 P.M.	4	67	99.00
F.	Apr. 1, 7.00 A.M.	4	61	92.64	E.	Apr. 2, 9.00 A.M.	5	67	96.02
G.	Apr. 2, 12.00 M.	4	67	95.02	F.	Apr. 1, 8.00 A.M.	5	61	91.55
H.	Apr. 1, 9 30 P.M.	5	67	95.52	G.	Apr. 2, 2.00 P.M.	5	62	94.29
K.	Apr. 4, 12.00 M.	4	63	90.60	H.	Apr. 5, 8.00 A.M.	5	60	88.74
1st M.-G. Plat.					I.	Apr. 2, 2.30 P.M.	5	60	89.85
	Apr. 2, 7.00 A.M.	5	9	98.52	K.	Apr. 1, 8.00 A.M.	5	62	95.36
					2d M.-G. Plat.				
						Apr. 4, 8.00 A.M.	4	9	96.30
Figure of merit of Regiment,				95.57	Figure of merit of Regiment,				94.58

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Apr. 1, 7.00 P.M.	4	67	92.04	B.	Apr. 1, 2.00 P.M.	5	59	88.68
B.	Apr. 1, 12.00 M.	4	57	89.76	C.	Apr. 2, 1.00 P.M.	4	64	94.86
C.	Apr. 1, 7.00 P.M.	5	49	83.56	D.	Apr. 2, 9.00 A.M.	4	67	91.04
D.	Apr. 1, 7.00 P.M.	4	59	92.63	E.	Apr. 4, 1.00 P.M.	4	59	86.42
E.	Apr. 1, 7.00 P.M.	5	56	87.98	F.	Apr. 1, 5.00 P.M.	5	53	84.86
F.	Apr. 1, 8.00 A.M.	5	44	80.98	G.	Apr. 1, 10.00 A.M.	5	67	96.52
G.	Apr. 1, 7.00 P.M.	4	56	80.84	I.	Apr. 2, 1.00 P.M.	4	62	92.14
I.	Apr. 1, 12.00 M.	5	64	91.22	K.	Apr. 1, 1.00 P.M.	5	55	83.12
3d M.-G. Plat.					4th M.-G. Plat.				
	Apr. 1, 9.00 A.M.	5	8	96.29		Apr. 2, 5.00 P.M.	5	9	92.59
Figure of merit of Regiment,				88.37	Figure of merit of Regiment,				90.03

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Apr. 1, 3.00 P.M.	4	57	78.65	1st	Apr. 4,	4	33	70.26
B.	Apr. 2, 7.00 A.M.	5	65	89.26	2d	Apr. 1,	4	39	81.45
C.	Apr. 2, 7.30 P.M.	4	62	81.38					
Figure of merit of Battalion,				83.10	Figure of merit of Battery,				75.85

III. The publication of this order and the corresponding order last month was delayed through the inaccuracy and carelessness of some company commanders. Hereafter, the names of officers causing such unnecessary delay will be announced in the order publishing the figures of merit.

IV. Commanding officers will hereafter cause recruits to be examined by a Medical Officer C. N. G. or a Post Surgeon as soon as possible after enlistment, and will transmit the papers through Regimental Headquarters to this office not later than the last day of the month in which enlisted.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
 No. 10. }

ADJUTANT-GENERAL'S OFFICE,
 HARTFORD, May 11, 1887.

I. The companies of infantry, machine-gun platoons, and platoons of light artillery, National Guard, will each parade one day during the present month, in their respective towns, under orders of the regimental, battalion, or battery commander. Companies of infantry and machine-gun platoons will devote a portion of the day to rifle practice, under orders of the commandant and supervision of the regimental Inspector of Rifle Practice, and the rest of the day to such drill as the commandant shall direct, including instruction in Guard duty and skirmish drill, which will form a part of the day's duty.

Regimental Signal Officers will attend the parades of those companies having signal details, for the purpose of instructing the men in that duty, if so ordered by regimental commandant.

II. Regimental, battalion, and battery commanders will attend the parades of companies and platoons in person, or be represented by a field officer, and will report in writing through Brigade Headquarters in detail, *on or before June 1, proximo*, as to the condition and efficiency of each company, the rifle practice and drills and maneuvers performed, time occupied in rifle practice, time devoted to drill, and the number in each organization actually present and performing duty.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

[CIRCULAR.]

STATE OF CONNECTICUT.

ADJUTANT-GENERAL'S OFFICE,
 HARTFORD, May 11, 1887.

The several companies of infantry, platoons of light artillery, and machine-gun platoons of the National Guard, are invited to attend and parade at the dedication of the Soldiers' and Sailors' Monument, at New Haven, June 17, proximo. Transportation of all organizations which attend will be furnished by the State on requisition upon the Quartermaster-General, in the usual form, approved by this office, and pay for horses used by machine-gun platoons and platoons of light artillery, and the mounted officers and non-commissioned officers thereof will be allowed same as by law provided for State parades. Rations will be provided by the city of New Haven.

The Brigade Commander and Staff, the Field, Staff and Bands of those organizations volunteering to parade on that day will be ordered out for duty, so that no expense need be incurred by any member of the National Guard.

It is earnestly desired by the Commander-in-Chief that all organizations of the National Guard accept the invitation, and parade with full ranks in a manner creditable alike to the State and the Guard.

All organizations C. N. G. will report as promptly as possible to this office direct, and also to regimental, battalion, or battery headquarters, their action in accordance with this invitation.

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 11. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, May 19, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since April 22, 1887 :

RESIGNED AND DISCHARGED.

SECOND REGIMENT.

Chaplain J. Oramel Peck, April 27, 1887.

PROMOTED AND APPOINTED.

BATTERY A.

William H. Lee of Guilford, appointed First Lieutenant commanding First Platoon, with rank from April 11, 1887, *vice* Gillette, resigned.

SECOND REGIMENT.

Carl E. Munger of Waterbury, appointed Assistant Surgeon, with rank of First Lieutenant from April 14, 1887, *vice* French, resigned.

FOURTH REGIMENT.

Corporal George T. Jewell of Stratford, appointed Second Lieutenant Company K, with rank from April 26, 1887, *vice* Judson, resigned.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of April, 1887, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	May 2, 7.00 A.M.	4	66	98.01	A.	May 3, 2.00 P.M.	4	68	98.90
B.	May 4, 10.00 A.M.	4	67	96.03	B.	May 2, 10.00 A.M.	4	67	94.04
D.	May 2, 7.00 A.M.	4	63	93.71	C.	May 2, 10.00 A.M.	4	68	99.51
E.	May 2, 11.00 A.M.	4	68	97.06	D.	May 2, 7.00 P.M.	4	68	98.77
F.	May 2, 7.00 A.M.	4	63	93.70	E.	May 3, 10.00 A.M.	4	68	97.06
G.	May 2, 11.00 A.M.	4	67	96.52	F.	May 2, 2.00 P.M.	4	61	92.20
H.	May 2, 11.00 A.M.	4	67	95.03	G.	May 4, 2.00 P.M.	4	62	93.83
K.	May 2, 7.00 A.M.	4	62	92.76	H.	May 4, 9.30 P.M.	4	58	86.48
1st M.-G. Plat.					I.	May 2, 11.30 A.M.	4	61	94.93
	May 2, 7.00 A.M.	4	9	99.07	K.	May 2, 10.00 A.M.	4	62	95.45
					2d M.-G. Plat.				
						May 2, 10.00 A.M.	5	9	100.00
Figure of merit of Regiment,				95.77	Figure of merit of Regiment,				95.56

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	May 2, 8.00 A.M.	4	67	91.05	B.	May 2, 9.00 A.M.	4	60	87.75
B.	May 2, 11.00 A.M.	4	57	89.93	C.	May 4, 9.00 A.M.	4	64	90.75
C.	May 2, 10.00 A.M.	4	50	84.51	D.	May 2, 5.00 P.M.	4	67	92.54
D.	May 2, 8.00 A.M.	4	63	92.22	E.	May 3, 2.00 P.M.	4	58	85.90
E.	May 2, 10.00 A.M.	4	56	86.97	F.	May 4, 9.00 A.M.	4	57	86.42
F.	May 2, 10.00 A.M.	4	48	81.17	G.	May 2, 10.00 A.M.	4	67	91.55
G.	May 2, 5.00 P.M.	5	55	79.08	L.	May 3, 5.00 P.M.	4	64	90.26
I.	May 2, 8.00 A.M.	4	66	92.96	K.	May 2, 10.00 A.M.	4	54	83.26
3d M. G. Plat.					4th M. G. Plat.				
	May 2, 8.00 A.M.	4	8	83.38		May 4, 9.00 A.M.	4	9	91.67
Figure of merit of Regiment,				86.81	Figure of merit of Regiment,				88.90

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	May 2, 11.00 A.M.	5	59	82.59	1st	May 2,	3	33	71.27
B.	May 2, 7.00 P.M.	4	67	91.05	2d	May 2,	4	40	82.52
C.	May 3, 7.00 A.M.	5	59	82.03					
Figure of merit of Battalion,				85.22	Figure of merit of Battery,				76.90

III. The following-named members of the Third Regiment, C. N. G., are hereby announced as deserters, for which offense they have been dishonorably discharged from the military service of the State :

COMPANY A.

Privates William T. Corcoran, Christopher J. Collins, James McEnaney, Frank D'Avignon, William H. Fass, Patrick Hurley, Daniel J. Keating, Edward McLaughlin, Thomas Roach, Timothy P. Shehan, Jeremiah Twomey.

COMPANY D.

Private John McLaughlin.

IV. The Brigade Commander, Battalion Commanders, and commanding officers of companies of infantry, C. N. G., will drop from records of State property charged to them all scarlet bugle cords and tassels; the Quartermaster-General will issue in place thereof white bugle cords and tassels.

V. Private George W. Morrison, Company K, First Regiment C. N. G., has been dishonorably discharged from the military service of the State for neglect of duty and non-payment of dues, in accordance with sentence of Field Officers' Court-Martial, April 29, 1887.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 12. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, June 1, 1887.

I. The following-named officers of the Connecticut National Guard, being reported by the Examining Board appointed and convened by G. O. No. 8, c. s., as having passed a satisfactory examination in military tactics and duties, will be commissioned with rank and date as given herewith:

BRIGADE STAFF.

Major Alexander Allen, Brigade Inspector,	Hartford,	Jan. 17, 1887.
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FIRST REGIMENT.

Captain George B. Newton,	Co. F, Hartford,	Feb. 7, 1887.
Captain John Hickey,	Co. G, Manchester,	Feb. 7, 1887.
First Lieutenant Henry E. Chapman,	Co. H, Hartford,	Sept. 14, 1886.
First Lieutenant Charles L. Bissell,	Co. G, Manchester,	Feb. 7, 1887.
Second Lieutenant Charles H. Patterson,	Co. H, Hartford,	Sept. 14, 1886.
Second Lieutenant Louis B. Hubbard,	Co. F, Hartford,	Feb. 7, 1887.

SECOND REGIMENT.

Lieutenant-Colonel John B. Doherty,	Waterbury,	Jan. 24, 1887.
Major Frank T. Lee,	New Haven,	Jan. 24, 1887.
Captain Charles C. Ford,	Co. F, New Haven,	Feb. 16, 1887.
First Lieutenant William H. Newton, Paymaster,	Wallingford,	Feb. 9, 1887.
First Lieutenant Charles G. Miller,	Co. B, New Haven,	Feb. 16, 1887.
First Lieutenant Harvey S. Munson,	Co. F, New Haven,	Feb. 16, 1887.
Second Lieutenant Daniel E. Fitzpatrick,	Co. G, Waterbury,	Oct. 19, 1886.
Second Lieutenant George M. Schaffner,	Co. B, New Haven,	Feb. 16, 1887.
Second Lieutenant John T. Gill,	Co. F, Orange,	Feb. 16, 1887.
Second Lieutenant Edward I. Williams,	Co. D, New Haven,	Mar. 10, 1887.

THIRD REGIMENT.

Captain Thomas B. Linton,	Co. C, Norwich,	Nov. 12, 1886.
First Lieutenant Frank P. Goff,	Co. I, New London,	Aug. 10, 1886.
First Lieutenant John F. Murray,	Co. A, New London,	Nov. 30, 1886.
First Lieutenant Irving E. Hill,	Co. C, Norwich,	Dec. 7, 1886.
First Lieutenant William E. Pendleton, Quartermaster,	New London,	Jan. 7, 1887.

First Lieutenant George M. Cole, Paymaster,	New London,	Jan. 7, 1887.
Second Lieutenant Samuel Prince,	Co. I, New London,	Aug. 10, 1886.
Second Lieutenant Fred A. Fox,	Co. C, Norwich,	Jan. 18, 1887.

FOURTH REGIMENT.

Major George L. Porter, Surgeon,	Bridgeport,	Mar. 8, 1887.
First Lieutenant Charles H. Gibner,	Co. B, Bridgeport,	Feb. 8, 1887.
Second Lieutenant John McGraw,	Co. D, Norwalk,	Sept. 3, 1886.
Second Lieutenant William J. Phillips,	Co. G, Danbury,	Oct. 8, 1886.
Second Lieutenant Garrie P. Sanger,	Co. B, Bridgeport,	Feb. 8, 1887.

FIFTH BATTALION.

Second Lieutenant Charles E. Fuller,	Co. A, New Haven,	Jan. 7, 1887.
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II. The following-named officers of the Connecticut National Guard, having either previously passed an examination for a similar or higher grade, or not being required to report for examination, will be commissioned with rank and date as given herewith :

BATTERY A.

First Lieutenant William H. Lee, First Platoon,	Guilford,	Apr. 11, 1887.
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THIRD REGIMENT.

Nicholas T. Allen, Chaplain,	Groton,	Nov. 1, 1886.
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III. Second Lieutenant Edward R. May, Company A, Third Regiment Connecticut National Guard, who failed to pass a satisfactory examination before the Examining Board, will be re-examined at the next session of the Board, in accordance with the unanimous recommendation of the Board that he be allowed another examination.

IV. Captain James Moran, Company A, Third Regiment, C. N. G., and Second Lieutenant George H. Wilkinson, Company K, Second Regiment, C. N. G., having failed to pass a satisfactory examination before the Examining Board ; and Second Lieutenant William H. Schildge, Company G, First Regiment, C. N. G., having failed to appear before said Board when ordered, or to present a satisfactory excuse for his non-appearance, the appointments of those officers are hereby revoked, and they are discharged from the military service of the State, to date June 1, 1887.

V. The commanding officer of each company in which a vacancy is created by this order is hereby ordered to warn the members of the company to appear at their armory to make nomination by ballot to fill the vacancy, and in like manner make nomination for any vacancies in the commissioned offices of said company, occurring by reason of the nomination herein ordered, and make return of the nominations so made to this office without delay, transmitting therewith a copy of his orders issued in compliance herewith.

By order of the Commander-in-Chief.

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 13.ADJUTANT-GENERAL'S OFFICE,
HARTFORD, June 4, 1887.

I. The Brigade Commander and Staff, the Field, Staff, and Band of each regiment and the battalion of infantry, and the Captain and battery non-commissioned officers of Battery A, Connecticut National Guard, are hereby ordered to assemble at New Haven, June 17, inst., for parade at the dedication of the Soldiers and Sailors Monument in that city. Muster pay-rolls for the above-described officers and men, with pay and allowance as provided by law, will be signed by each officer and man parading on day of parade and forwarded to this office on the day following.

II. Companies of infantry, platoons of artillery, and machine-gun platoons, C. N. G., which have volunteered to parade at the celebration above referred to, will report for duty to their respective regimental, battalion, or battery commanders, who will report to Brigadier-General Charles P. Graham, commanding C. N. G., for duty during the day. General Graham will report the brigade to General Edwin S. Greeley, Chief Marshal of the parade, for assignment in line.

III. Commanding officers of machine-gun platoons and platoons of light artillery parading, will make and forward to this office muster pay-rolls for pay for horses and forage therefor; the pay for horses used by mounted officers and non-commissioned officers will be receipted for by the rider.

IV. All company and platoon organizations parading will make and forward to next immediate headquarters, en route to or immediately upon arrival in New Haven, morning reports showing number present and absent; commanding officers of the battalions of infantry and the battery will forward to brigade headquarters on the day following the parade a consolidated report thereof; the brigade commander will transmit the reports to this office, with his Consolidated Daily Report of the parade.

V. Commanding officers of organizations, Connecticut National Guard, outside the city of New Haven, will make and forward immediately requisitions for transportation to New Haven and return June 17, inst. Transportation will be allowed only for regular members of the organizations parading in uniform. Transportation of horses will be furnished only from headquarters of organizations. As soon as arrangements for transportation are perfected, the Quartermaster-General will notify commanding officers the time of leaving their respective stations.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 14.ADJUTANT-GENERAL'S OFFICE,
HARTFORD, June 22, 1887.

The Commander-in-Chief desires to express his gratification at the splendid appearance of the Connecticut National Guard, on the occasion of the dedication of the monument at New Haven on the 17th instant.

Its appearance was such as to elicit very strong praise from Generals Sherman, Sheridan, Terry, and others.

The march on such a day is necessarily very fatiguing, and the added discomfort of transportation, in some cases for long distances on crowded trains, rendered it especially tiresome.

When it is considered that every company of the Connecticut National Guard volunteered, upon the request of the Commander-in-Chief, for this patriotic duty and without pay, their conduct cannot be too highly commended.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 15.

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, June 28, 1887.

I. The following members of the National Guard are announced as having qualified during the season of 1886, as Sharpshooters, First-Class Marksmen, and Marksmen, in accordance with Article XXVII, Regulations C. N. G., 1884, in addition to those men announced in G. O. No. 4, c.s., and are awarded the State decoration, which is to be worn whenever the dress uniform is worn:

SECOND REGIMENT.

Field, Staff, and Non-Commissioned Staff.

NAMES.	2d Class.			1st Class.			Desig- nation. 1886.	Previous Qualifications.							
	300 Yds.	400 Yds.	Total.	200 Yds.	500 Yds.	Total.		1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Coms'y Sergt. H. P. Viberts, Jr.,	21	21	42	21	19	40	Sharpsh'r,	m	m	m	m	m	m	1st c. m.	

Company A.

Private	Birkenmayer, C. J.,...	14	11	25	16	16	32	Marksm'n.					
"	Burr, O. H.,.....	13	16	29	14	17	31	"					
"	Dodds, J.,.....	14	17	31	15	13	28	"					
"	Silvernail, F.,.....	16	12	28	15	14	29	"					
"	Ward, H. G.,.....	14	12	26	20	19	39	1st Cl. M.					

Company B.

2d Lieut.	Geo. M. Schaffner,....	16	15	31	17	17	34	1st Cl. M.					
1st Sergt.	H. W. Weisner,.....	13	16	29	15	16	31	Marksm'n.					
Private	Robinson, H.,.....	13	13	26	15	18	33	"					

Company C.

NAMES.	2d Class.			1st Class.			Desig- nation. 1886.	Previous Qualifications.							
	Yds.		Total.	Yds.		Total.		1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
	300	400		200	500										
Corporal J. J. Hogan,	13	17	30	19	21	40	Sharps'r.								

Company D.

Corporal G. A. Holbrook,	20	20	40	22	21	43	Sharps'r.								
" W. W. Hill,	17	16	33	17	17	34	1st Cl. M.								
Private Hofacker, C.,	17	14	31	14	13	27	Marks'n,	..	..	..	..	..	m	m	

Company K.

Sergeant H. Norton, Jr.,	18	13	31	19	17	36	1st Cl. M.								
" D. L. Barber,	14	16	30	14	15	29	Marks'n.								
Corporal O. A. Phelps,	14	15	29	18	14	32	"								
Musician Lane, O. F.,	21	16	37	17	19	36	1st Cl. M.								
Private Niland, J. J.,	17	16	33	18	17	35	"								

FIFTH BATTALION.

Field, Staff, and Non-Commissioned Staff.

1st Lieut. W. P. H. Cross, Q.-M.,	15	13	28	19	17	36	1st Cl. M.,	..	..	..	..	..	m		
1st " W. H. Donaldson, Asst.															
Surgeon,	19	17	36	20	20	40	Sharps'r,	..	..	..	..	..	m	s	

Company A.

Private Cannon, J. R.,	21	16	37	13	13	26	Marks'n,	..	..	..	..	m			
" Jones, J. O.,	22	19	41	20	22	42	Sharps'r,	..	..	..	..	..	..	m	

Company B.

Captain L. G. Seymour,	17	11	28	18	22	40	Sharps'r,	..	..	..	..	m	s		
1st Lieut. L. E. Seymour,	16	22	38	20	20	40	"	..	..	..	..	m	m		
1st Sergt. H. H. Williams,	19	7	26	18	22	40	"	..	..	..	..	m	m	m	
Sergeant A. M. Seymour,	14	13	27	18	22	40	"	..	..	..	..	m	m		
" V. E. Davis,	13	15	28	19	15	34	Marks'n,	..	..	..	..	m	m		
Corporal D. Jackson,	16	13	29	16	14	30	"	..	..	..	..	m	m		
" A. E. Williams,	15	11	26	20	17	37	1st Cl. M.,	..	..	..	..	m	m	m	
" J. H. Ford,	15	13	28	17	17	34	"	..	..	..	..	m	m		
Musician H. M. Ceasor,	13	13	26	14	15	29	Marks'n,	..	..	..	..	m	m		
Private Carr, J.,	14	11	25	18	13	31	"	..	..	..	..	m	m		
" Christian, W. W.,	21	7	28	14	14	28	"	..	..	..	..	m	m		
" Jackson, P.,	13	15	28	15	15	30	"	..	..	..	..	m	m		
" Mason, F. M.,	13	14	27	17	17	34	1st Cl. M.	..	..	..	..	m	m		

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL-ORDERS, {
No. 16. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, July 7, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since May 19, 1887 :

RESIGNED AND DISCHARGED.

SECOND REGIMENT.

Captain Frank L. Blakeley, Company A, June 6, 1887.

APPOINTMENT REVOKED AND DISCHARGED.

Captain James Moran, Company A, Third Regiment, June 1, 1887.

Second Lieutenant William H. Schildge, Company G, First Regiment, June 1, 1887.

Second Lieutenant George H. Wilkinson, Company K, Second Regiment, June 1, 1887.

PROMOTED AND APPOINTED.

SECOND REGIMENT.

First Lieutenant Lucien F. Burpee of Waterbury, appointed Captain Company A, with rank from June 13, 1887, *vice* Blakeley, resigned.

Charles L. Stocking of Waterbury, appointed First Lieutenant Company A, with rank from June 13, 1887, *vice* Burpee, promoted.

THIRD REGIMENT.

Second Lieutenant Michael J. Roach, Company D, of New London, appointed Captain Company A, with rank from June 8, 1887, *vice* Moran, appointment revoked and discharged.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of May, 1887, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	June 1, 7.00 A.M.	4	68	98.53	A.	June 8, 10.00 A.M.	6	68	97.06
B.	June 2, 8.00 P.M.	4	63	94.38	B.	June 2, 10.00 A.M.	5	67	92.54
D.	June 4, 1.00 P.M.	5	62	92.22	C.	June 2, 10.00 A.M.	5	68	98.53
E.	June 1, 1.00 P.M.	5	68	96.08	D.	June 1, 8.00 A.M.	4	68	99.51
F.	June 1, 7.00 A.M.	4	64	95.96	E.	June 3, 10.00 A.M.	4	68	96.57
G.	June 3, 12.00 M.	5	67	96.52	F.	June 1, 8.00 A.M.	5	60	93.30
H.	June 2, 10.00 A.M.	4	66	92.45	G.	June 1, 2.00 P.M.	6	67	96.52
K.	June 2, 5.00 P.M.	4	62	91.15	H.	June 9, 12.00 M.	6	58	87.05
1st M.-G. Plat.					I.	June 2, 8.00 A.M.	5	63	94.38
	June 1, 7.00 A.M.	4	9	100.00	K.	June 1, 8.00 A.M.	5	62	95.45
					2d M.-G. Plat.				
						June 2, 7.00 P.M.	5	9	100.00
Figure of merit of Regiment,				95.25	Figure of merit of Regiment,				95.54

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	June 1, 7.00 A.M.	4	60	87.19	B.	June 1, 2.00 P.M.	6	63	90.14
B.	June 1, 12.00 M.	5	61	92.20	C.	June 2, 9.00 A.M.	5	61	89.47
C.	June 1, 9.00 P.M.	6	51	83.82	D.	June 9, 1.00 P.M.	4	68	92.65
D.	June 1, 7.00 A.M.	6	62	94.37	E.	June 3, 1.00 A.M.	5	59	86.55
E.	June 1, 12.00 M.	5	57	87.59	F.	June 4, 11.00 A.M.	5	57	82.33
F.	June 1, 9.00 A.M.	4	50	82.51	G.	June 1, 5.00 P.M.	6	64	90.75
G.	June 1, 12.00 M.	5	58	85.33	I.	June 3, 10.00 A.M.	5	65	91.35
I.	June 1, 7.00 A.M.	6	66	93.46	K.	June 1, 11.00 A.M.	6	52	85.11
3d M.-G. Plat.					4th M.-G. Plat.				
	June 3, 7.00 A.M.	4	8	96.30		June 2, 3.00 P.M.	4	9	93.52
Figure of merit of Regiment,				89.20	Figure of merit of Regiment,				89.10

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	June 1,	5	57	84.08	1st	June 1,	6	36	90.38
B.	June 1,	5	66	92.96	2d	June 1,	5	40	93.35
C.	June 3,	5	63	84.22					
Figure of merit of Battalion,				87.12	Figure of merit of Battery,				91.87

III. The figures of merit of organizations of the C. N. G., for the drill season, November 1, 1886, to May 31, 1887, are as follows:

Brigade,	87.45
First Regiment,	93.90
Second Regiment,	93.69
Fourth Regiment,	89.39
Third Regiment,	85.73
Fifth Battalion,	83.90
Battery A,	78.09

COMPANIES OF INFANTRY.

1. Co. D, Second Regiment, .	98.90	20. Co. F, Second Regiment, .	90.80
2. Co. C, Second Regiment, .	97.66	21. Co. A, Third Regiment, .	89.96
3. Co. A, Second Regiment, .	96.62	22. Co. I, Fourth Regiment, .	89.62
4. Co. B, First Regiment, .	95.47	23. Co. B, Fourth Regiment, .	89.25
5. Co. E, Second Regiment, .	95.08	24. Co. D, Third Regiment, .	89.09
6. Co. K, Second Regiment, .	94.07	25. Co. I, Third Regiment, .	88.55
7. Co. G, Fourth Regiment, .	93.92	26. Co. B, Fifth Battalion, .	87.52
8. Co. D, First Regiment, .	93.89	27. Co. B, Third Regiment, .	87.37
9. Co. H, First Regiment, .	93.75	28. Co. H, Second Regiment, .	87.12
10. Co. F, First Regiment, .	93.43	29. Co. F, Fourth Regiment, .	86.25
11. Co. E, First Regiment, .	93.10	30. Co. E, Fourth Regiment, .	86.03
12. Co. A, First Regiment, .	92.91	31. Co. E, Third Regiment, .	85.77
13. Co. K, First Regiment, .	92.90	32. Co. C, Fifth Battalion, .	83.66
14. Co. C, Fourth Regiment, .	92.64	33. Co. K, Fourth Regiment, .	82.83
15. Co. G, First Regiment, .	92.63	34. Co. C, Third Regiment, .	82.48
16. Co. G, Second Regiment, .	92.28	35. Co. A, Fifth Battalion, .	80.51
17. Co. I, Second Regiment, .	92.01	36. Co. G, Third Regiment, .	78.92
18. Co. B, Second Regiment, .	91.45	37. Co. F, Third Regiment, .	78.35
19. Co. D, Fourth Regiment, .	90.82		

PLATOONS OF ARTILLERY.

Second Platoon, Battery A (Branford),	84.54
First Platoon, Battery A (Guilford),	71.63

MACHINE-GUN PLATOONS.

First Machine-Gun Platoon, First Regiment,	97.01
Second Machine Gun Platoon, Second Regiment,	94.55
Third Machine-Gun Platoon, Third Regiment,	93.92
Fourth Machine-Gun Platoon, Fourth Regiment,	93.12

IV. The following-named members of the Connecticut National Guard have been dishonorably discharged from the military service of the State, for the reasons assigned :

FIRST REGIMENT.

COMPANY F.—Private L. Howard Tracy; Insubordination and neglect of duty : in accordance with sentence of Field Officers' Court-Martial, June 13, 1887.

THIRD REGIMENT.

COMPANY C.—Privates Jeremiah Desmond, Daniel Shields, Desertion; Privates George S. Draper, Michael J. Murphy, Intoxication in uniform : in accordance with sentence of Field Officers' Court-Martial, June 13, 1887.

FOURTH REGIMENT.

COMPANY B.—Private Wallace E. Ufford, Desertion and Neglect of duty ; in accordance with sentence of Field Officers' Court-Martial, June 2, 1887.

V. The publication of this order has been delayed by reason of the large number of incorrect drill reports for month of May received, and especially through the

neglect of the commanding officers of Company C, Fourth Regiment, Company C, Fifth Battalion, First Platoon, Battery A, C. N. G., to correct and re-forward reports promptly.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 17.

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, July 18, 1887.

I. Brigadier-General Charles P. Graham commanding, is hereby ordered to assemble the Brigade CONNECTICUT NATIONAL GUARD, at the State camp-ground, Niantic, Monday, August 22d, prox., at 10 o'clock A. M., for six days' camp duty. No organization will be allowed in camp prior to that date. All books of record will be subject to inspection as required. General Graham will forward to these Headquarters in the field, daily during the encampment, a "Consolidated Daily Report" of the troops, and at the close of the encampment will forward to this office the Regimental, Battalion, and Battery "Consolidated Morning Reports" for each day. The encampment will be conducted according to the provisions of Article XI, Regulations C. N. G., 1884.

II. The Quartermaster-General will lay out the camp-ground and pitch the tents, including quarters for two officers of the U. S. Army.

III. Commanding officers will make requisition for transportation on or before July 25th, instant. Transportation for horses for Field and Staff officers will be furnished only from the respective Regimental and Battalion headquarters.

The Brigadier-General commanding is directed to make requisition upon the Quartermaster-General for necessary camp equipage, supplies, and blank ammunition required to carry out any field-maneuvers decided upon; supplies for use of companies and platoons will be issued by the Quartermaster-General direct to the respective commanding officers thereof, in camp, upon their requisition.

IV. The attention of officers and men is again invited to the careful and just criticisms of Lieutenant Totten, U. S. A., upon the encampment of last year, as published in G. O. No. 5, dated A. G. O., March 22, 1887, especially such as relate to guard duty and salutes; and they are urged to use every endeavor to correct the evils therein noted. The custom which has prevailed to some extent of social visits between officers and men during the encampment is entirely unmilitary, and should be absolutely abolished. It is expected that two officers of the U. S. Army will be detailed by the War Department for duty at the encampment, one to give special instruction in guard duty, each day, to the officers and men detailed for that duty, and one to give instruction in the use of heavy artillery.

V. The Commander-in-Chief desires to remind the officers and men of the Brigade that encampments are for the purpose of their instruction, and that the State has a right to expect of them strict attention to duty while there. He intends to be present several days during the encampment, but wishes his presence there to interfere as little as practicable with the regular routine of military duties; he there-

fore desires that no troops be sent to the railroad station to escort him to the camp, and that the Brigade be not paraded on his arrival there. He will review the Brigade Friday, August 26th.

VI. Muster pay-rolls for duty will be made out strictly in accordance with law, and the instructions contained therein, and must be *signed and completed on or before the last day of encampment*, and delivered at these Headquarters in the field by 10 o'clock A. M. Saturday, August 27th; they must be complete in every respect. Enlistment papers of recruits not previously forwarded to this office will be forwarded through usual channels on or before that date. The attention of all commanding officers is invited to Par. VIII, G. O. No. 10, series of 1885, for special instructions regarding muster pay-rolls.

VII. Encampments of the National Guard being held by authority of law, every officer and enlisted man is required to be present for duty.

Commanding officers are directed to see that enlisted men, absent without leave or satisfactory excuse to them, are legally notified of fines incurred, and that the fines are collected. Excuses for imperative reasons only may be granted. The fine for absence from camp without leave or satisfactory excuse is five dollars for each day of absence (an absence from any one of the three daily roll-calls in camp is, by law, absence for the entire day), and for any unsoldierly conduct or disobedience to orders not more than ten dollars. The Brigadier-General will report to this office any commissioned officers absent, with all facts regarding the cause of absence. Excuses for absence on pass or guard duty in camp must be verified in each case at Brigade Headquarters.

VIII. It having come to the knowledge of this office that in some companies of the C. N. G. the usual calls for company drills are not regularly sounded, it is hereby ordered, that in the drills preparatory to the encampment, and in all company drills in armories in the future, two calls be sounded; the first, ten minutes before the hour appointed for drill, when the men will at once obtain their uniforms and arms and repair near their places in line. When the first note of the "assembly" is sounded the First Sergeant will give the command, "FALL IN"; and as the last note is sounded he will command, "*Left, FACE*"; "*Support, ARMS*"; and call the roll.

By order of the Commander-in-Chief.

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 18. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 13, 1887.

I. The following-named officers of the U. S. Army have been detailed by order of the Adjutant-General U. S. A. to instruct the Connecticut National Guard at the encampment at Niantic, during the week commencing August 22d instant, in guard duty and in heavy artillery drill:

First Lieutenant Charles A. L. Totten, Fourth Regiment Artillery.

First Lieutenant Alexander B. Dyer, Fourth Regiment Artillery.

First Lieutenant William R. Hamilton, Fifth Regiment Artillery.

The assignment of these officers to specific duties will be made subsequently from this office.

II. Brigadier-General Charles P. Graham, commanding Brigade, Connecticut National Guard, will assign quarters to these officers, and will give such orders to the troops as will ensure the most thorough instruction possible in the time allowed. Guard duty will be conducted strictly in accordance with U. S. Army Regulations.

III. General Graham will make such details from his command for instruction in heavy artillery drill as may be deemed necessary, and will make requisition for any blank ammunition required for practice with the siege-guns and mortars.

IV. The detail of three officers of the U. S. Army for duty at the encampment indicates the desire of the National Government to assist in every way possible in the instruction of the National Guard, and the Commander-in-Chief believes that the entire National Guard will appreciate the honor conferred thereby and gladly avail themselves of the opportunity for instruction.

V. The following decision of the Lieutenant-General, U. S. Army, published in Circular No. 5, dated Headquarters of the Army, A.-G. O., Washington, D. C., June 10, 1887, is published for the information and guidance of the National Guard:

"On the parade for review of a brigade or battalion, or other body of troops less than a brigade, the commanding officer, when presenting his command to the reviewing officer, will have his sword drawn, and all officers of the command on parade will likewise have their swords drawn. The swords will remain drawn throughout the review, and will not be sheathed *until the parade is dismissed*. The commanding officer of the troops to remain at attention in front of his command, facing to the front while the reviewing party passes around the lines."

Such portions of the Regulations C. N. G., 1884, as conflict therewith are hereby revoked.

VI. Paragraphs 846 (p. 163); 853 (p. 165); 854 and 855 (p. 166), Article XII, Regulations C. N. G., 1884, are hereby revoked, and the following substituted therefor in order to conform to U. S. Army Regulations:

846. A sentinel, in challenging, will call out,—"*Who comes there?*" If answered,—"*Friend with the countersign,*" and he be instructed to pass persons with the countersign, he will reply,—"*Advance, friend with the countersign!*" If answered,—"*Friends,*" he will reply,—"*Halt, friends! advance one, with the countersign!*" If answered,—"*Relief,*" "*Patrol,*" or "*Grand rounds,*" he will reply,—"*Halt! Advance, Sergeant (or Corporal), with the countersign,*" and satisfy himself that the party is what it represents itself to be. If he have no authority to pass persons with the countersign, if the wrong countersign be given, or if the persons have not the countersign, he will cause them to stand, and call,—"*Corporal of the guard!*" General officers, the commander of the post, the Officer of the Day, and officers and non-commissioned officers of the guard, are, by virtue of their offices, entitled to the countersign. If a sentinel, therefore, in response to his challenge receives the answer that the person challenged is either of these officers or non-commissioned officers, he calls,—"*Advance, Officer of the Day* (or otherwise, as the case may be), *with the countersign.*"

Officers, when instructing sentinels in challenging, will be careful to point out the principle that only one person is to be permitted to approach the sentinel until the correct countersign has been given.

853. When the rounds are challenged by a sentinel, the Sergeant will answer, — "*Grand rounds,*" and the sentinel will reply, — "*Halt, grand rounds! advance, Sergeant, with the countersign!*" upon which the Sergeant advances, and gives the countersign. The sentinel will then call, — "*Advance, rounds,*" and stand at a carry, till they have passed. The Sergeant returns to his position, and the officer making the rounds will advance and question the sentinel as to his orders or instructions. When satisfied, he will join his escort and proceed to the next sentinel.

854. When the sentinel before the guard challenges, and is answered, — "*Grand rounds!*" he will reply, — "*Halt, grand rounds! Turn out the guard! Grand rounds!*" upon which the guard will be drawn up at carry arms. The officer commanding the guard will then order a non-commissioned officer and two men to advance; when within ten paces, the non-commissioned officer will halt, and challenge briskly, — "*Who comes there?*" The Sergeant of the rounds answers, — "*Grand rounds!*" The non-commissioned officer of the guard replies, — "*Advance, Sergeant, with the countersign!*" The Sergeant advances alone, gives the countersign, and returns to his rounds. The Sergeant of the guard calls to his officer, — "*The countersign is right!*" on which the officer of the guard calls, — "*Advance, rounds!*" The officer of the rounds then advances alone, the guard standing at carry arms.

855. The officer of the guard keeps his post and gives the officer of the rounds the parole (which may be now demanded), in such tone of voice that it may not be heard by the guard.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

CIRCULAR.

STATE OF CONNECTICUT.

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 18, 1887.

Erase paragraph No. **855**, Regulations C. N. G., 1884, as published in G. O. No. 18 c. s., in each copy of the Regulations issued to you or your command, and substitute therefor the following paragraph:

855. The officer of the rounds advances alone to the officer of the guard (who keeps his post) and gives to him the parole in such tone of voice that it may not be heard by the guard.

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 19. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 19, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since July 7, 1887:

RESIGNED AND DISCHARGED.

THIRD REGIMENT.

Captain J. Emerson Harris, Inspector of Rifle Practice, July 20, 1887.

PROMOTED AND APPOINTED.

FIRST REGIMENT.

Sergeant Thomas J. Quish of Manchester, appointed Second Lieutenant Company G, with rank from July 7, 1887, *vice* Schildge, appointment revoked and discharged.

THIRD REGIMENT.

First Lieutenant Thomas H. Allen, Signal Officer, of Sprague, appointed Inspector of Rifle Practice, with rank of Captain from July 21, 1887, *vice* Harris, resigned.

Hiram W. Hubbard of New London, appointed Signal Officer, with rank of First Lieutenant from July 21, 1887, *vice* Allen, promoted.

Sergeant M. Wilson Dart of New London, appointed Second Lieutenant Company D, with rank from July 5, 1887, *vice* Roach, promoted Captain Company A.

II. The following assignment of the officers of the U. S. Army detailed for duty at the encampment of the Connecticut National Guard at Niantic, August 22 to 27 instant, is hereby made:

First Lieutenant Charles A. L. Totten, Fourth Regiment Artillery, as Instructor in Guard Duty.

First Lieutenant Alexander B. Dyer, Fourth Regiment Artillery, as Assistant Instructor in Guard Duty.

First Lieutenant William R. Hamilton, Fifth Regiment Artillery, as Instructor in Heavy Artillery Drill.

III. Paragraph 855, Regulations C. N. G., 1884, as published in G. O. No. 18 c. s., being an error in copying, is hereby revoked, and the following substituted therefor:

855. The officer of the rounds advances alone to the officer of the guard (who keeps his post) and gives to him the parole in such tone of voice that it may not be heard by the guard.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, } ADJUTANT-GENERAL'S OFFICE,
 No. 20. } CAMP LOUNSBURY, NIANTIC, CONN., August 27, 1887.

The Commander-in-Chief desires to congratulate the brigade upon the good work done, and the fine appearance made by it at the encampment this year.

Although suffering from inclement weather, which caused great discomfort and prevented a number of drills, it is believed that greater progress has been made, particularly in guard duty, skirmish and heavy artillery drill, and in saluting than in any previous year. This has been due to the desire on the part of the officers and men of the brigade to learn, and also in great measure to the very valuable instruction given by Lieutenants Totten, Dyer, and Hamilton, U. S. Army, to whom the Commander-in-Chief desires to publicly express his thanks for their services.

If the work so well begun is carried forward in the drills during the coming year, the encampment of next year will show a still more marked improvement.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, } ADJUTANT-GENERAL'S OFFICE,
 No., 21. } HARTFORD, CONN., September 24, 1887.

I. So much of Paragraphs 1898 and 1900, Regulations C. N. G., as requires reports of expenditures of cartridges in rifle practice to be made on Blank No. 7, and transmitted to the Adjutant-General with requisitions for ammunition for target practice, is hereby suspended, and in lieu of such report, commandants of companies will hereafter accompany such requisitions with a written statement, certified to on honor, of the total amount of cartridges expended to date, in accordance with Regulations governing target practice.

II. So much of Paragraph V and Paragraph VII, General Order No. 2, A.-G. O., series of 1878, as requires from commandants of companies C. N. G., a detailed report to Regimental Headquarters and to the Adjutant-General's Office, of all expenditures of ammunition in rifle practice, is hereby revoked, and such reports will not hereafter be required.

III. Records of expenditure of ammunition in target practice will continue to be kept as heretofore in the "Record Book of Target Practice," provided for the purpose, and such records shall be at all times open to inspection by the proper officer.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 22. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, October 15, 1887.

I. In accordance with the provisions of Section 9, Chapter I, Title X of the General Statutes, the following persons are hereby appointed Post-Surgeons, to determine exemptions from military duty by the standard of disability prescribed by the Surgeon-General:

Hartford County — William W. Knight, Hartford; George Clary, New Britain; Edward F. Parsons, Enfield; I. P. Fiske, Southington; Henry C. Bunce, Glastonbury; George F. Lewis, Canton; Chas. W. Wooster, Tariffville; Noah W. Holcombe, Simsbury; Henry E. Way, Bristol; Charles Carrington, Farmington; S. R. Burnap, Windsor Locks; Julian N. Parker, Manchester; Edward G. Fox, Wethersfield; E. J. McKnight, East Hartford.

New Haven County — C. Purdy Lindsley, New Haven; Alfred North, Waterbury; N. Nickerson, Meriden; George L. Beardsley, Derby; William H. Andrews, Milford; G. P. Reynolds, Guilford; J. D. McGaughey, Wallingford; Walter H. Zink, Branford; W. C. Williams, Cheshire; Franklin B. Tuttle, Naugatuck.

Middlesex County — Francis D. Edgerton, Middletown; John H. Grannis, Old Saybrook; Miner C. Hazen, Haddam; Edward H. Bidwell, East Haddam; Charles H. Hubbard, Essex; Edwin Bidwell, Saybrook; Herbert Reynolds, Clinton.

New London County — Francis N. Braman, New London; S. L. Sprague, Norwich; Frank A. Coates, Stonington; Myron W. Robinson, Colchester; George W. Harris, Old Lyme; William Soule, Griswold; Edwin H. Knowles, North Stonington.

Windham County — William A. Lewis, Plainfield; John B. Kent, Putnam; Theodore R. Parker, Windham; Rienzi Robinson, Killingly; Lowell Holbrook, Thompson; Henry L. Hammond, Dayville.

Tolland County — S. G. Risley, Vernon; C. B. Newton, Stafford; Henry S. Dean, Coventry; Frederick Johnson, Mansfield.

Fairfield County — Charles C. Godfrey, Bridgeport; Wm. C. Burke, Jr., Norwalk; Abraham T. Clason, Danbury; Edward P. Lyon, Bethel; Henry Hungerford, Stamford; Edward M. Smith, Newtown; Sylvester Mead, Greenwich; William S. Todd, Ridgefield; William G. Brownson, New Canaan; Loren T. Day, Westport; William H. Donaldson, Fairfield; Moses H. Wakeman, Redding; Andrew B. Gorham, Wilton.

Litchfield County — C. O. Belden, Litchfield; William Bissell, Salisbury; James Hine, New Milford; Edward H. Welch, Winchester; Leander Y. Ketcham, Woodbury; Edward Sanford, Cornwall; William Woodruff, Thomaston; William L. Platt, Torrington; Eugene C. French, Watertown.

II. All persons between the ages of 18 and 45 years, desiring exemption from military duty and commutation tax, by reason of mental or physical disability, must

report to one of the Post-Surgeons for examination, and if found exempt will be furnished with a certificate of exemption, to be filed by them with the selectmen of the town in which they are liable to enrollment. Those who were exempted by Post-Surgeons in any year since 1878, and the disability classed as *permanent*, will not be required to be examined again, unless by order of the Surgeon-General. Persons who neglect to file their certificate of exemption with the selectmen before the first day of February next will be debarred from exemption for the year.

III. Post-Surgeons will make exemptions strictly in accordance with the orders of the Surgeon-General, and on the 1st of February next will report to him, on blank form as provided, the names of all exempted by them, giving town and disability, and the names of all examined and not exempted. The fee for examination will be paid on approval of this office upon the report made to the Surgeon-General.

Blanks for certificates of exemption and reports to Surgeon-General will be supplied to Post-Surgeons from this office.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 23. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, October 28, 1887.

I. The commanding officers of each regiment and the Battery C. N. G. will immediately order weekly evening drills of each company and platoon in their respective commands, to be resumed November 1st *proximo*, and continued until May 31, 1888. Not less than one drill each month will be devoted to guard duty by posting and relieving sentinels, and especially instruction in the duties of sentinels on post, and at least one drill each month to skirmish drill. Guard duty and skirmish drill showed marked improvement at the last encampment, and with careful attention to these matters during the drill season, and study of the valuable manual, "Instructions in Guard Duty," by Lieutenant Totten, U. S. A., a number of copies of which will be shortly issued to each company, still greater improvement should be shown at the next encampment.

It is urgently recommended that schools for officers and non-commissioned officers be established by regimental, company, and platoon commanders, to be held monthly or oftener, as a means not only of giving instruction, but of awakening special interest in the National Guard. The particular attention of all commanding officers, C. N. G., is directed to G. O. No. 17, 1885, containing explicit instructions regarding reports of drills to this office.

II. With the monthly report of drills in triplicate required to be forwarded to this office during the drill season, commanding officers of companies and platoons will hereafter forward a monthly report of gain and loss on blank form No. 41, A.-G. O., to be provided; this report will be transmitted by intermediate commanding officers.

III. Company commanders are urged to give especial attention to recruiting during the winter, and to make careful inquiries concerning the character of all applicants. Hereafter recruits enlisted after June 1st of any year will not be borne upon the rolls for duty at the encampment of that year. This provision will not apply to men enlisting after June 1st who have previously served a term of enlistment. It is impossible to impart intelligent instruction in camp duties to a recruit who is not familiar with the manual of arms and the school of the soldier.

Recruits who are induced to enlist just previous to an encampment for the purpose of going there are not likely to prove of permanent advantage to any organization.

IV. The Examining Board will be convened soon for the examination of officers already appointed.

V. It having come to the knowledge of this office that the eight new pattern Springfield B. L. R. muskets, cal. 45, recently issued to each of the several regimental commandants, have been used by members of the regiments for qualifying as marksmen, etc., attention is called to the fact that by the terms of the letters announcing that such issue would be made, it was distinctly stated that they were for "team" practice. It is impossible to obtain any large number of these rifles for issue to the C. N. G. at present, or in the near future, and the injustice of permitting their use for qualifying scores by a few favored men is so manifest that it cannot be permitted.

The use of these rifles in classification or qualification for the State decorations in rifle practice under the Regulations, C. N. G., 1884, is hereby forbidden, and all such scores made with the new pattern rifles above described are declared invalid.

Regimental Inspectors of Rifle Practice in forwarding qualifying scores for the State decorations to the Brigade Inspector of Rifle Practice will certify on honor that each score was made with the regular service rifle with which the respective commands are armed. These certificates will be transmitted to this office, with the report of the Brigade Inspector of Rifle Practice, of men qualifying during the present season. Where classifying or qualifying scores have been made by individuals in practice which is forbidden by this order, new scores may be made with the regular arm, and for this purpose the time for qualification of such men *only* is hereby extended to November 15th *proximo*.

VI. Form No. 7, A.-G. O. [Consolidated Report of Rifle Practice] as formerly issued from this office is declared obsolete, and will not hereafter be used for report to this office of expenditure of ammunition in rifle practice. All of these blanks in hands of commanding officers C. N. G. will be immediately returned to this office.

New form No. 7, A.-G. O. [Report of Receipt and Expenditure of Ammunition in Rifle Practice] will be issued from this office, and will in future be filled out as indicated and transmitted with each requisition for ammunition for rifle practice, in lieu of the written statement required by Par. I, G. O., No. 21 c. s.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 24. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 1, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since August 19, 1887 :

RESIGNED AND DISCHARGED.

FIRST REGIMENT.

First Lieutenant Everett L. Morse, Co. F, October 31, 1887.

SECOND REGIMENT.

Captain John Garrity, Co. C, October 14, 1887.

Captain Henry B. Wood, Co. I, October 11, 1887.

THIRD REGIMENT.

Captain Paul L. Gibson, Co. F, September 12, 1887.

PROMOTED AND APPOINTED.

SECOND REGIMENT.

Justin E. Twitchell, of New Haven, appointed Chaplain, with rank from September 20, 1887, *vice* Peck, resigned.

First Sergeant Robert E. Hall, of Wallingford, appointed Second Lieutenant Co. K, with rank from July 28, 1887, *vice* Wilkinson, appointment revoked and discharged.

THIRD REGIMENT.

First Lieutenant John Armstrong, of Killingly, appointed Captain Co. F, with rank from September 20, 1887, *vice* Gibson, resigned.

Second Lieutenant Kent A. Darbie, of Killingly, appointed First Lieutenant Co. F, with rank from September 20, 1887, *vice* Armstrong, promoted.

Sergeant Arthur H. Buxton, of Killingly, appointed Second Lieutenant Co. F, with rank from Sept. 20, 1887, *vice* Darbie, promoted.

APPOINTMENT REVOKED AND DISCHARGED.

THIRD REGIMENT.

Second Lieutenant Arthur H. Buxton, Co. F, October 20, 1887.

II. The following-named members of the Connecticut National Guard have been dishonorably discharged from the military service of the State, in accordance with sentences of Field Officers' Courts-Martial.

FIRST REGIMENT.

COMPANY D:— Private James J. Lane.

SECOND REGIMENT.

COMPANY E:— Private John H. Holst.

THIRD REGIMENT.

COMPANY B:—Musician Thomas J. Traut.

FOURTH REGIMENT.

COMPANY E:—Private John Riley.

III. —Privates George D. Havens and Thomas F. Tisdale, Co. I, Third Regiment, C. N. G., are hereby announced as deserters, for which offense they have been dishonorably discharged from the military service of the State, in accordance with sentence of Field Officers' Court-Martial.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, }
No. 25. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 4, 1887.

I. In accordance with law, the CONNECTICUT NATIONAL GUARD will be mustered and inspected between the 15th and 30th inst., inclusive, by the commanding officers of Regiments, Battalion, or Battery, who will muster their respective commands in person, in the evening, at their several armories. *Only those will be mustered as present who are in uniform and in the ranks.* The same fine for non-attendance will be imposed as for absence from any legally warned parade or encampment. The muster will be conducted according to Art. XXIII, Regulations C. N. G., 1884.

II. Duplicate muster-rolls will be properly made out by commanding officers prior to date of muster, on new form muster-rolls to be provided by this office; the old form muster-rolls, as formerly issued, will not be used hereafter, all blank muster-rolls now in hands of commanding officers must be returned to this office immediately. All recruits will be examined by the Surgeon or Assistant-Surgeon (or Post-Surgeon in towns where a medical officer, C. N. G., is not readily accessible), and their enlistment papers forwarded through Headquarters to this office at or before muster. The rolls must account for every commissioned officer and enlisted man whose name appeared on the last muster-roll of the command, and all those who have since joined the organization, and will contain *all the information* provided for by the muster-roll blanks. Officers will pay particular attention to the Notes on back of muster-rolls. In preparing and filling out the rolls a strict conformance with the instructions will be observed, and commanding officers will carefully fill out the recapitulation and memoranda on rolls.

III. The muster will be preceded by a thorough inspection, as prescribed in Art. XVII, Regulations C. N. G., 1884. The mustering officer will report on muster-rolls the condition of records, and of the uniforms, arms, and equipments of officers and men, their discipline, instruction, and military appearance; and will also give such other information as will be useful to the Commander-in-Chief.

IV. Mustering officers will assign dates in General Orders for muster and inspec-

tion of the different organizations as soon as possible ; if any of such dates are subsequently changed, prompt notice thereof will be sent to this office ; they will carefully scrutinize the muster-rolls and see that they are properly filled as required, and forward them to this office promptly after completion of muster, and will also require that the fine for non-attendance (as provided by law) is imposed and collected.

V. Application for the discharge of members prior to muster must be made by commanding officers immediately.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 26. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 16, 1887.

In order to avoid all possible misunderstanding on the subject in future, it is hereby ordered that all musters and inspections, not already held this year, and all future musters and inspections, unless otherwise ordered from this office, will be in heavy marching order, with knapsacks, overcoats, blankets, blouses, and forage-caps. Overcoats or blankets to be rolled on knapsacks, and the articles not rolled to be packed in knapsacks. If preferred, the forage-cap may be ordered worn on left hip button of dress coat. The slinging and unslinging of knapsacks is an important part of the drill, which should not be overlooked, and is usually only drilled at muster, or preparation therefor. While the Regulations, C. N. G., do not explicitly state that knapsacks will be worn at muster, yet it is so plainly implied by the Manual for inspection, that it was not deemed necessary to embody it in the original order for muster (G. O., No. 25, c. s.) from this office.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

GENERAL ORDERS, {
No. 27. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, December 20, 1887.

I. Changes as follows in the commissioned officers of the Connecticut National Guard have occurred since November 1, 1887 :

RESIGNED AND DISCHARGED.

SECOND REGIMENT.

First Lieutenant Kyron J. Farrell, Company G, November 7, 1887.

PROMOTED AND APPOINTED.

FIRST REGIMENT.

Second Lieutenant Louis B. Hubbard of Hartford, appointed First Lieutenant Company F, with rank from November 7, 1887, *vice* Morse, resigned.

First Sergeant Charles W. Newton of Hartford, appointed Second Lieutenant Company F, with rank from November 7, 1887, *vice* Hubbard, promoted.

SECOND REGIMENT.

First Lieutenant Timothy F. Callahan of New Haven, appointed Captain Company C, with rank from October 20, 1887, *vice* Garrity, resigned.

Second Lieutenant Michael Creed of New Haven, appointed First Lieutenant Company C, with rank from October 20, 1887, *vice* Callahan, promoted.

First Sergeant James J. Kennedy of New Haven, appointed Second Lieutenant Company C, with rank from October 20, 1887, *vice* Creed, promoted.

Second Lieutenant Daniel E. Fitzpatrick of Waterbury, appointed First Lieutenant Company G, with rank from November 15, 1887, *vice* Farrell, resigned.

Quartermaster-Sergeant Patrick Halpin of Waterbury, appointed Second Lieutenant Company G, with rank from November 15, 1887, *vice* Fitzpatrick, promoted.

First Lieutenant Charles B. Bowen of Meriden, appointed Captain Company I, with rank from October 20, 1887, *vice* Wood, resigned.

Second Lieutenant Frederick T. Ward of Meriden, appointed First Lieutenant Company I, with rank from October 20, 1887, *vice* Bowen, promoted.

First Sergeant Robert W. Isbell of Meriden, appointed Second Lieutenant Company I, with rank from October 20, 1887, *vice* Ward, promoted.

THIRD REGIMENT.

Private Henry E. Burton of Killingly, appointed Second Lieutenant Company F, with rank from November 15, 1887, *vice* Buxton, appointment revoked and discharged.

II. The following are announced as the figures of merit of each organization of the Connecticut National Guard for the month of November, 1887, based on the drill reports for the month :

FIRST REGIMENT.					SECOND REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Dec. 1, 7.00 A.M.	3	67	90.55	A.	Dec. 1, 9.30 A.M.	5	65	95.97
B.	Dec. 1, 2.00 P.M.	3	64	95.44	B.	Dec. 3, 2.00 P.M.	4	64	93.35
D.	Dec. 2, 7.00 P.M.	4	60	86.08	C.	Dec. 1, 9.30 A.M.	6	58	88.77
E.	Dec. 2, 1.00 P.M.	4	67	89.56	D.	Dec. 5, 10.00 A.M.	3	68	98.53
F.	Dec. 1, 7.00 A.M.	4	63	95.43	E.	Dec. 2, 10.00 A.M.	5	67	95.03
G.	Dec. 2, 7.00 P.M.	4	68	97.06	F.	Dec. 2, 10.00 A.M.	4	60	89.97
H.	Dec. 3, 10.00 A.M.	3	67	92.54	G.	Dec. 3, 10.00 A.M.	5	63	92.79
K.	Dec. 1, 7.00 A.M.	4	61	91.11	H.	Dec. 3, 10.00 A.M.	4	59	87.68
1st M.-G. Plat.					I.	Dec. 2, 8.30 A.M.	4	67	94.04
	Dec. 5, 1.00 P.M.	3	9	98.77	K.	Dec. 2, 10.00 A.M.	5	62	93.30
					2d M.-G. Plat.				
						Dec. 1, 7.00 P.M.	5	8	97.78
Figure of merit of Regiment,				92.95	Figure of merit of Regiment,				93.38

THIRD REGIMENT.					FOURTH REGIMENT.				
Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Companies.	Received at Regimental Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Dec. 5,	5	55	82.72	B.	Dec. 1, 3.00 P.M.	5	65	88.79
B.	Dec. 1, 8.00 A.M.	4	60	88.86	C.	Dec. 2, 9.00 A.M.	4	62	91.15
C.	Dec. 1, 9.00 A.M.	5	47	82.61	D.	Dec. 5, 9.00 A.M.	4	65	91.35
D.	Dec. 2, 8.00 P.M.	5	57	85.25	E.	Dec. 2, 3.00 P.M.	4	55	83.32
E.	Dec. 1, 8.00 A.M.	5	59	91.07	F.	Dec. 5, 9.00 A.M.	6	59	89.37
F.	Dec. 15,	6	49	76.40	G.	Dec. 1, 3.00 P.M.	5	68	90.20
G.	Dec. 1, 8.00 A.M.	4	55	82.72	I.	Dec. 6, 9.00 A.M.	4	59	87.11
I.	Dec. 1, 8.00 P.M.	5	62	86.84	K.	Dec. 1, 9.00 A.M.	5	49	81.16
3d M.-G. Plat.					4th M.-G. Plat.				
	Dec. 6, 8.00 P.M.	5	8	87.13		Dec. 1, 4.00 P.M.	5	9	98.52
Figure of merit of Regiment,				84.84	Figure of merit of Regiment,				89.00

FIFTH BATTALION.					BATTERY A.				
Companies.	Received at Battalion Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.	Platoons.	Received at Battery Headquarters.	No. of Drills.	Average Membership.	Figure of Merit.
A.	Dec. 2,	5	55	74.84	1st	Dec. 1,	3	32	81.23
B.	Dec. 5,	5	62	89.00	2d	Dec. 1,	5	39	87.26
C.	Dec. 5,	4	59	77.56					
Figure of merit of Battalion,				80.47	Figure of merit of Battery,				84.24

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

Special Orders.

STATE OF CONNECTICUT.

SPECIAL ORDERS, }
No. 103. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 12, 1886.

I. The nomination of Second Lieutenant Herbert N. Small of Norwich, to be Captain Company C, Third Regiment, Connecticut National Guard, vice Gilbert discharged, is hereby disapproved. The nomination of First Sergeant John J. Toomey of Norwich, to be Second Lieutenant Company C, Third Regiment, C. N. G., is also disapproved, there being no vacancy.

II. The Commander-in-Chief having twice disapproved nominations to fill the vacancy caused by the discharge of Captain Charles H. Gilbert, Company C, Third Regiment, C. N. G., in accordance with the authority vested in him by Section 9, Chapter 2, Title X, General Statutes [p. 9, Militia Law], as amended Section 6, Chapter CIX, Public Acts 1883 [p. 2, G. O. No. 10, 1883], First Lieutenant Thomas B. Linton of Norwich is hereby appointed Captain Company C, Third Regiment, C. N. G., with rank from date hereof, and will be respected and obeyed accordingly.

III. Captain Thomas B. Linton, commanding Company C, Third Regiment, C. N. G., is hereby ordered to warn the members of said company to appear at their Armory to nominate by ballot a First Lieutenant, vice Linton promoted, and in like manner make nominations for any vacancies in the commissioned offices of said company occurring by reason of the nomination above ordered, and will make return of the nominations so made to this office without delay, transmitting therewith a copy of his orders issued in compliance herewith.

By order of the Commander-in-Chief,

STEPHEN R. SMITH,
Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, }
No. 108. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 27, 1886.

I. Leave of absence for thirty days from date hereof, with permission to leave the State, is hereby granted Second Lieutenant Carlton L. Parsons, Company D, Second Regiment, Connecticut National Guard.

II. Upon the application of Colonel William E. Cone, commanding First Regiment, Connecticut National Guard, and in accordance with Par. V, G. O. No. 19 c. s., permission is hereby granted all officers First Regiment, Connecticut National Guard, to retain and wear, until further orders, the overcoat as now worn by them, instead of the overcoat for officers described in Par. 2119, Article XXX, Regulations C. N. G. [G. O. No. 18, c. s.], and all officers First Regiment, Connecticut National Guard, in service November 1st instant, are also granted permission to retain and

wear the undress coat as then worn by them with the exception that the slashings on each side are to be closed. All persons hereafter appointed officers First Regiment, C. N. G. will provide themselves with, and wear, the undress coat as described in Par. 2038, 2039, Article XXX, Regulations, C. N. G.

By order of the Commander-in-Chief,

STEPHEN R. SMITH.

Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, {
No. 3. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, January 12, 1887.

I. The resignation of Major John B. Clapp, Brigade Inspector, Connecticut National Guard, is hereby accepted, and he is honorably discharged to date January 5, 1887, to accept an appointment on the Staff of the Commander-in Chief.

II. In accepting the resignation of Major Clapp, the Commander-in-Chief desires to express his appreciation of the valuable services he has rendered to the National Guard during a long term of years in the military service of the State

By order of the Commander-in Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, {
No. 4. }

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, January 12, 1887.

I. The resignation of Lieutenant-Colonel Henry R. Loomis, Second Regiment, Connecticut National Guard, is hereby accepted, and he is honorably discharged from the military service of the State.

By the resignation of Lieutenant-Colonel Loomis the Regiment and the State loses the services of a faithful and efficient officer.

II. Colonel Walter J. Leavenworth, commanding Second Regiment, C. N. G., is hereby ordered to assemble the Field and Line Officers of the Regiment at Regimental Armory, New Haven, on or before Monday, January 24th instant, giving notice as required by law, and when so assembled will lead them to nominate by ballot a Lieutenant-Colonel, and in like manner make nomination for any vacancy in the Field Officers which may occur by reason of said nomination, and make return of said nominations to this office without delay, transmitting therewith a copy of his orders issued in compliance herewith.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, }
No. 23. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, March 8, 1887.

A Board of Inspection is hereby appointed to convene at the State Arsenal on Friday, March 11th instant, at 9 o'clock A. M., or as soon thereafter as practicable, to inspect certain ordnance, clothing, and camp and garrison equipage reported by the Quartermaster-General as unserviceable.

The Board will consist of Brigadier-General John B. Clapp, Commissary-General; Major Alexander Allen, Brigade Inspector, Connecticut National Guard, and Captain Samuel O. Prentice, First Regiment, Connecticut National Guard, and will make report in detail to this office of the articles inspected, with their recommendations in each case as to what disposition should be made of the same.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, }
No. 29. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, April 15, 1887.

The armory at Norwalk having been completed and accepted by the State, Companies D and F, Fourth Regiment, Connecticut National Guard, will be transferred to the new armory. The Quartermaster-General will furnish necessary transportation for the property pertaining to those companies, and will assign quarters to them. The transfer will be completed and the present armories vacated on or before May 1st proximo.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, }
No. 34. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, May 7, 1887.

I. The Examining Board, for the examination of officers, Connecticut National Guard, appointed by G. O. No. 8, c. s., to convene at this office Wednesday next, May 11th instant, will re-convene at the Second Regiment Armory, New Haven, Thursday, May 12th instant, at 9 o'clock A. M.

II. The following-named officers of the Second Regiment and Fifth Battalion will appear before said board for examination at 9 o'clock A. M., Thursday, May 12th instant, in fatigue uniform, without side arms:

SECOND REGIMENT.

Major Frank T. Lee; Captain Charles C. Ford; First Lieutenant William H. Newton, Paymaster; First Lieutenant Charles G. Miller; First Lieutenant Harvey S. Munson; Second Lieutenant George H. Wilkinson; Second Lieutenant George M. Schaffner; Second Lieutenant John T. Gill; Second Lieutenant Edward I. Williams.

FIFTH BATTALION.

Second Lieutenant Charles E. Fuller.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, {
No. 43.

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, May 31, 1887.

The Board of Inspection appointed by S. O. No. 23, c. s., to inspect certain ordnance and ordnance stores, clothing, and camp and garrison equipage, having condemned certain articles of public property (as per their report) as being unnecessary and unserviceable, and recommended that said property be disposed of, the Quartermaster-General is hereby directed to sell the property so condemned for cash, at public sale or otherwise, as may be for the best interest of the State, and report the amount received from each sale or sales to this office.

The remaining ordnance inspected by the Board will remain in State Arsenal for further orders.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, {
No. 68.

ADJUTANT-GENERAL'S OFFICE,
HARTFORD, August 31, 1887.

[EXTRACT.]

* * * * *

II. The resignation of Major Thomas McManus, Judge Advocate First Regimental District, is hereby accepted.

By order of the Commander-in-Chief,

FRED'K E. CAMP,
Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, {
No. 86. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 11, 1887.

On account of the inability of Colonel George Haven, commanding Third Regiment, Connecticut National Guard, to personally muster and inspect Companies B, C, E, F, G, of his command, in accordance with Par. I, G. O. No. 25, c. s., Major Alexander Allen, Brigade Inspector C. N. G., is hereby assigned to that duty. The companies will be mustered and inspected on such dates between the 15th and 30th instant as may be arranged between the Regimental Commandant and the Inspector.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

STATE OF CONNECTICUT.

SPECIAL ORDERS, {
No. 91. }ADJUTANT-GENERAL'S OFFICE,
HARTFORD, November 29, 1887.

I. The State Armory at New Britain having been completed and accepted by the Armory Commission, Companies D and E, First Regiment, Connecticut National Guard, will be transferred thereto. The Quartermaster-General will furnish necessary transportation for the property pertaining to those companies, and will assign quarters to them. The transfer will be completed and the armory now occupied by these companies vacated on or before December 1st proximo.

II. The time for muster and inspection of Companies D and E, First Regiment, Connecticut National Guard, under the provisions of G. O. No. 25, c. s., is hereby extended to December 15, 1887.

By order of the Commander-in-Chief,

FRED'K E. CAMP,

Adjutant-General.

REPORT

OF THE

Quartermaster-General,

OF THE

STATE OF CONNECTICUT,

TO THE

COMMANDER-IN-CHIEF,

FOR THE

FISCAL YEAR ENDING JUNE 30, 1887.

HARTFORD, CONN.:

PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.

1888.

State of Connecticut.

AUDITORS' REPORT.

To his Excellency, PHINEAS C. LOUNSBURY, Governor:

This certifies that we, the Auditors of Public Accounts, have examined the general accounts and special account for the purchase of new uniforms of General Arthur L. Goodrich, Quartermaster-General, from July 1, 1886, to January 12, 1887, compared the vouchers for the same and found them correct, and we are of the opinion that the duties of said department have been faithfully and efficiently performed.

FRANK L. RODGERS, } *Auditors of*
JOHN E. SCANLAN, } *Public Accounts.*

HARTFORD, January 31, 1887.



REPORT.

STATE OF CONNECTICUT,
QUARTERMASTER-GENERAL'S OFFICE,
HARTFORD, Jan. 12, 1887.

Brigadier-General CHARLES OLMSTEAD, *Quartermaster-General*
of Connecticut:

GENERAL,—I have the honor to hand you herewith a statement of the account of this office with the State of Connecticut from the commencement of the fiscal year July 1, 1886, to the period when my official transactions closed, Jan. 12, 1887.

Very respectfully yours,

ARTHUR L. GOODRICH,
Late Quartermaster-General.

DR.

STATE OF CONNECTICUT IN ACCOUNT WITH

1887.

January 12.	To amount expended	Care Public Property,	\$2,362.66
"	"	Arsenal Repairs,	65.23
"	"	Office Expense,	202.85
"	"	Freight and Express,	295.58
"	"	Contingent,	7.63

CONNECTICUT NATIONAL GUARD.

To amount expended	Encampment and Military Stores,	\$7,290.45
To amount expended	Transportation,	5,363.32
"	Uniforms,	12,816.78
"	Uniform Repairs,	138.10
"	Care of Arms,	1,532.13
"	Rifle Ranges,	360.78
"	Ammunition,	62.04
"	Officers' Compensation,	1,913.22
"	Uniform Compensation,	1,720.00
"	Band Commutation,	75.00
"	Armory Rents,	5,705.25
"	Waterbury Armory,	456.86
"	New London Armory,	381.84
"	Bridgeport Armory,	447.66
		<u>\$41,197.38</u>

DR.

STATE OF CONNECTICUT IN ACCOUNT WITH

SPECIAL ACCOUNT

1887.

January 12.	To amount expended,	New Uniforms,	\$20,000.00
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1887.]

QUARTERMASTER-GENERAL'S REPORT.

7

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

CR.

1887.

January 12.	By cash, Orders of Comptroller,	. . .	\$40,500.00
	“ Sales, . . . . .	. . .	132.15
	“ Interest on Special Account, . . . . .	. . .	195.38
	“ New Haven Armory, . . . . .	. . .	369.85

\$41,197.38

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

CR.

NEW UNIFORMS.

1886.

July 1.	By cash, Balance,	\$20,000.00
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PROPERTY RETURN.

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

[illegible]

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

CLASS B. CLOTHING.

[illegible]

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

CLASS C. QUARTERMASTER'S STORES.

[illegible]

PROPERTY RETURN.

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

CLASS D. ORDNANCE AND ORDNANCE STORES.

[illegible]

PROPERTY RETURN.

ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.

CLASS D. ORDNANCE AND ORDNANCE STORES.—Continued.

	SMALL ARMS AND ACCOUTREMENTS.																																																		
	RIFLES.											SMOOTH BORE.		BAYONETS.				PISTOLS.		SWORDS.		ACCOUTREMENTS.																													
	Peabody Breech-loading Rifled Muskets, Cal. .45.	Springfield Breech loading Rifled Muskets, Cal. .45.	Whitney Rifled Musket, Cal. .58.	Mississippi Rifled Musket.	Norfolk Rifled Musket, Cal. .58	Flint-lock Rifled Musket.	Sharps' Rifle, 36-in. barrel.	Spencer's Rifle.	Colt's Revolving Rifle, Cal. .56.	Sharps' Carbine.	Windsor Rifle.	Cadet Muskets.	Flint-lock Muskets, trophies.	Flint-lock Musket, breech-loader.	For Springfield Rifled Muskets, Cal. .58.	For Peabody B. L. Rifled Muskets, Cal. .45.	For Cadet Muskets	For Springfield B. L. Rifled Muskets, Cal. 45.	For Flint-lock Muskets, trophies.	Sabre Bayonets.	Colt's Pistols, Cal. .45.	Cavalry.	Whitney, Naval.	Light Artillery Sabres.	N. C. O. Swords.	N. C. Staff.	N. C. Staff Belts.	Cartridge Boxes, old.	Cartridge Boxes, new.	Waist Belts, old.	Waist Belts, new.	Bayonet Scabbards, old.	Bayonet Scabbards, new.	Cross Belt Plates.	Waist Belt Plates.	Cartridge Box Belts.	Scabbards for Sabre Bayonets.	Bayonet Scabbard Belts.	Cases Equipment Packing.	Cases Gun Packing.	Cases Pistol Packing.	Artillery Sabre Belts.	Artillery Sabre Belt Plates.	Pistol Holsters.	Cavalry Cartridge Box Belts and Plates.	Thrgs.	Music Pouches.	Band Waist Belts.	N.-C. Staff, Cross Belt Plates.	N. C. Staff, Belt Plates.	
Remaining on hand June 30, 1886,	91	327	1	1	1	1	1	1	1	1	29	44	1	2	127	28	313	24	1	97	1	75	50	3	1	1	164	257	165	232	48	254	151	335	12	1	1	26	51	3	8	7	40	125	115	20	17	17	..		
Received from Connecticut National Guard,	50	50	1	1	6	2	561	49	541	50	543	49	540	511	560	...	556	8	6	25	24	...	2		
Received from purchase,	6	12	71	1	9	10			
Received from 1st Company Governor's Horse Guard,	68			
Received from U. S. Government,	
Taken up,	1	3
Total to be accounted for,	141	327	1	1	1	1	1	1	1	1	29	44	1	2	177	28	313	24	1	98	1	75	50	4	14	15	725	306	706	282	591	303	691	846	572	1	557	34	57	3	147	11	40	125	124	45	41	17	12		
Issued to Connecticut National Guard,	15	7	2	19	10	...	8	8	...	25	...	31	...	27	...	14	4	2	...	11	11	8	8			
Expended and used in repairs,
Sold,	3	2	11	9	70			
Transferred to Brig.-Gen. Chas. Olmstead, Q.-M. Gen., January 12, 1887,	126	327	1	1	1	1	1	1	1	1	26	44	1	2	170	26	311	24	1	79	1	75	40	4	6	7	725	281	695	251	591	276	691	823	572	1	557	30	55	3	66	...	40	125	116	45	41	17	4		
Total issued, expended, dropped, sold, and transferred,	141	327	1	1	1	1	1	1	1	1	29	44	1	2	177	28	313	24	1	98	1	75	50	4	14	15	725	306	706	282	591	303	691	846	572	1	557	34	57	3	147	11	40	125	124	45	41	17	12		

PROPERTY RETURN.
ARTHUR L. GOODRICH, QUARTERMASTER-GENERAL.
CLASS D. ORDNANCE AND ORDNANCE STORES.—Continued.

[illegible]

AUDITORS' REPORT.

To his Excellency, PHINEAS C. LOUNSBURY, Governor:

This certifies that we, the Auditors of Public Accounts, have examined the accounts of General Charles Olmstead, Quartermaster-General, from January 12, 1887, to June 30, 1887, inclusive, compared the vouchers therewith, and find the same correct; that the State Camp Ground, the Arsenal buildings, military stores, and all other State property therein contained, appear to have been properly cared for, and we are of the opinion that the duties of the department have been faithfully and efficiently performed.

FRANK L. RODGERS, } *Auditors of*
JOHN E. SCANLAN, } *Public Accounts.*

HARTFORD, August 3, 1887.

REPORT.

STATE OF CONNECTICUT,
QUARTERMASTER-GENERAL'S OFFICE,
HARTFORD, June 30, 1887.

To His Excellency PHINEAS C. LOUNSBURY, *Governor and
Commander-in-Chief:*

In compliance with the laws of this State, I have the honor to submit the following report of the principal operations of this department from January 12, 1887, to the close of the fiscal year ending June 30th, both days inclusive.

Also that of my predecessor, Brigadier-General Arthur L. Goodrich, from July 1, 1886, to January 12, 1887.

ARMORIES.

In addition to the armories reported by my predecessor, as being owned and used by the State, I have the pleasure of increasing the number by the one then under contract at Norwalk, which was completed and accepted by the proper authority, early in April last. The sum appropriated for building this armory was nearly all expended in its construction, leaving the expense of the necessary grading about it to be paid for by this department.

The armory contracted for at New Britain is rapidly approaching completion, and will be ready for occupancy in a short time.

The roof of the armory at New Haven was found to be in bad condition, extensive repairs have been made, and it is now in good order, also the New London armory has been painted, and another company room fitted with lockers, for Company "A," Third Regiment.

STATE CAMP GROUND AND EQUIPAGE.

Upon entering upon the duties of my official position, I visited this ground and inspected its condition, together with the camp equipage stored there, all of which was found in good order, giving evidence of good care and attention.

A new barn for the use of the field and staff of the Fifth Battalion and Machine-Gun horses, has been constructed, the artillery barn has been moved from its original location, and placed on a line with the mess buildings.

All of the buildings have received two coats of paint, additional sinks have been built, and wells driven, making the camp ground and its appertenances in excellent condition, and ample in its accommodations for the whole brigade. The only thing lacking is a suitable fence, which will be erected, provided this department is able to meet the expense thereof.

No important addition has been made to the camp equipage, and it remains practically in the same condition as reported by my immediate predecessor.

It is the purpose of this department to procure from our quota of the appropriation from the general government, at least one hundred wall tents, with a view to the better sanitary condition and comfort of the camp.

I fully agree with General Goodrich, when he says, "that the 'A' tent should give place to better accommodations."

UNIFORMS.

The new dress uniforms for the entire National Guard, contracted for, and partially supplied by my immediate predecessor, are nearly all delivered by the contractor and issued.

The wisdom of this measure will not be questioned by any one, who embraced the opportunity afforded on the 17th of June, at New Haven, where the whole brigade assembled to honor the occasion of dedicating a soldiers' and sailors' monument. Favorable comment was made thereon by distin-

guished officers of the regular army, and of adjoining States, there present.

RIFLE RANGES.

New rifle ranges have been provided at Bridgeport and New London, and all others now in use by the National Guard put in complete repair.

SOLDIERS' AND SAILORS' FUNERAL EXPENSES AND HEAD-STONES.

During the period covered by this report, this department has approved of the funeral expenses of fifty-six (56) indigent soldiers and sailors, and caused to be placed in the different cemeteries of this State, at the graves of deceased men of these classes, two hundred and eighty-five (285) head-stones.

ORDNANCE STORES DUE FROM THE GENERAL GOVERNMENT.

The amount standing to the credit of the State November 1, 1886, was \$3,000.51, from which ordnance stores will be drawn to the amount of \$2,988.94, leaving a balance of \$11.57. Our quota from this source for the coming fiscal year is \$5,529.95, which is available for camp equipage, if so desired.

DEFICIENCY BILL.

It was early discovered that the available funds of this department were insufficient for its necessities to the end of the fiscal year, and the attention of the appropriation committee of the late General Assembly was called to this fact, by carefully prepared estimates. A deficiency bill, amounting to eighteen thousand (\$18,000) dollars, was favorably reported, and by legislative action became available on the 10th of March, from which this department has drawn seventeen thousand one hundred and eighty (\$17,180) dollars.

STATE ARSENAL.

Repairs have been made upon the buildings, which, together with the grounds, are in good condition.

A board of survey, after due examination, condemned as unserviceable, a large quantity of clothing and other stores, all of which has been ordered to be sold.

By authority of your Excellency, the entire military force of the State was, on the 17th of June, concentrated at New Haven. This was successfully accomplished by this department without accident, and the several commands were safely returned to their homes the same day.

Moving your entire command to and from a given point in the same day, has never been undertaken before in this State. For this success I am mainly indebted to my painstaking and efficient assistant, Lt.-Col. H. C. Morgan, whose extended army and official service has been invaluable.

I also desire to recognize the ability and faithfulness of all the employees of this department.

Very respectfully, your obedient servant,

CHARLES OLMSTEAD.

Quartermaster-General.

STATEMENT
OF
NET EXPENDITURES

From Jan. 12, 1887, to June 30, 1887.

DR. STATE OF CONNECTICUT, IN ACCOUNT WITH

1887.

June 30.	To amount expended Care Public Property, . . .	\$2,418.20
"	" " Office Expenses, . . .	264.95
"	" " Arsenal Repairs, . . .	328.57
"	" " Freight and Express, . . .	280.45

CONNECTICUT NATIONAL GUARD.

To amount expended Military Stores, . . .	\$1,142.86
" " Uniforms, . . .	6,815.96
" " Uniform Repairs, . . .	38.90
" " Care of Arms, . . .	62.36
" " Ammunition, . . .	33.38
" " Rifle Ranges, . . .	416.40
" " Targets, . . .	162.04
" " Officers' Compensation, . . .	96.66
" " Uniform Compensation, . . .	20.00

ARMORIES.

To amount expended Armory Rents, . . .	\$5,745.67
" " New Haven Armory, . . .	1,074.38
" " New London Armory, . . .	689.07
" " Waterbury Armory, . . .	519.11
" " Bridgeport Armory, . . .	235.51
" " Norwalk Armory, . . .	262.29
" " New Britain Armory, . . .	110.50

NIAHTIC CAMP GROUND.

To amount expended,	\$1,642.39
	<u>\$22,359.65</u>

1887.]

QUARTERMASTER-GENERAL'S REPORT.

23

CHARLES OLMSTEAD, QUARTERMASTER-GENERAL.

CR.

1887.

June 30.	By cash, Order of Comptroller,	. . . . .	\$21,180.00
	“ From Sales,	. . . . .	1,179.65

\$22,359.65

STATE PROPERTY

IN THE

Hands of the Quartermaster-General.

PROPERTY RETURN.
CHARLES OLMSTEAD, QUARTERMASTER-GENERAL.
CLASS A. CAMP AND GARRISON EQUIPAGE.

[illegible]

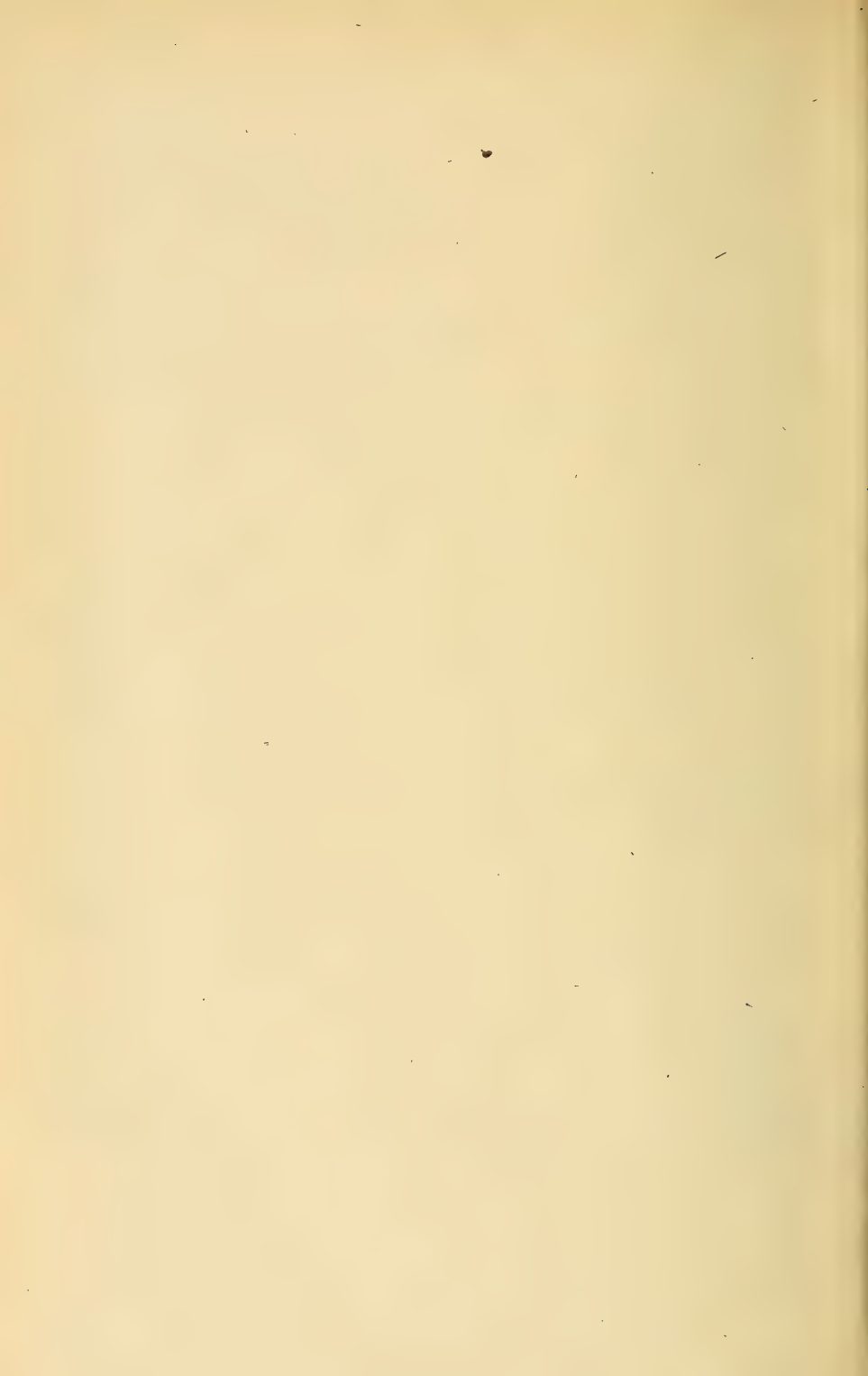
PROPERTY RETURN.
CHARLES OLMSTEAD, QUARTERMASTER-GENERAL.

CLASS B. CLOTHING.

	Overcoats, U. S. Reg.	Coats, Infantry, C. N. G.	Trousers, Infantry, C. N. G.	Blouses, Infantry, C. N. G.	Fatigue Caps, Infantry, C. N. G.	Helmets, Infantry, C. N. G.	Plumes, Artillery.	1st Sergeant Chevrans, sets.	Chevrans, Corporal, sets.	Chevrans, Sergeant, sets.	Chevrans, Quartermaster-Sergeant, Company, sets.	Quartermaster-Sergeant, Chevrans, Regimental, sets.	Sergeant-Major Chevrans, sets.	Hospital Steward Chevrans, sets.	Commissary-Sergeant Chevrans, sets.	Drum-Major Chevrans, sets.	Chief Musician's Chevrans, sets.	Chief Trumpeter Chevrans, sets.	Brigade Trumpeter Chevrans, sets.	Signal Sergeant Chevrans, sets.	Guidon, Chevrans, sets.	Veterinary Sergeant Devices, sets.	Chevrans, Miscellaneous, Old Pattern.	Signal Service Devices, sets.	Trumpeter Devices, sets.	Blankets, single.	Blankets, double.	Wool Blankets, old.	Scarlet Blankets.	Magenta Blankets.	Blue Blankets.	Blanket Cases.	Overcoat Cases.	Buttons, State, large.	Buttons, State, small.	Buttons, State, Officers', large.	Buttons, State, Officers', small.	Governor's Staff Coat Buttons.	Governor's Staff Vest Buttons.	Fatigue Caps, Old Pattern.	Helmets, Old Pattern.	Coats, Old Pattern.	Trousers, Old Pattern.	Blouses, Old Pattern.	Shakos.	Pompons.	Epaulettes, sets.
Received from Gen. A. L. Goodrich, January 12, 1887,	124	193	168	1	114	516	81	7	76	40	9	6	4	6	5	6	645	204	..	233	228	474	389	403	107	57	10	144	382	429	633	146	127	605	1658	2286	2202	2346	653	653	469
Received from Connecticut National Guard,	..	18	10	16	47	86	107	3	..	2	7	93	132	413	356	129	276	263	634		
Received from purchase,	..	407	432	284	100	181	..	4	31	22	4	1	1	11	2	12	2	3	2	2	..	786	1152	864	
Taken up,	2	1
Total to be accounted for,	124	618	610	301	261	783	81	13	107	62	13	7	5	6	5	18	2	12	2	3	2	2	752	304	86	235	228	474	389	403	107	57	17	1296	1246	429	633	146	127	698	1790	2699	2558	2475	929	916	5324
Issued to Connecticut National Guard,	88	588	590	243	198	705	..	13	104	57	13	7	5	5	5	16	1	8	2	2	2	2	12	17	17	6	8	24	36	65	22	1	24	77	
Sold,	1	2	9	1192	778	92	508	209	605	428	66	161	160	
Expended,	1
Remaining on hand, June 30, 1887,	36	30	20	58	63	78	81	..	3	4	1	..	2	..	4	..	1	738	134	69	235	219	474	383	403	107	57	9	80	432	429	633	146	127	541	1260	2489	1929	1970	863	755	3724

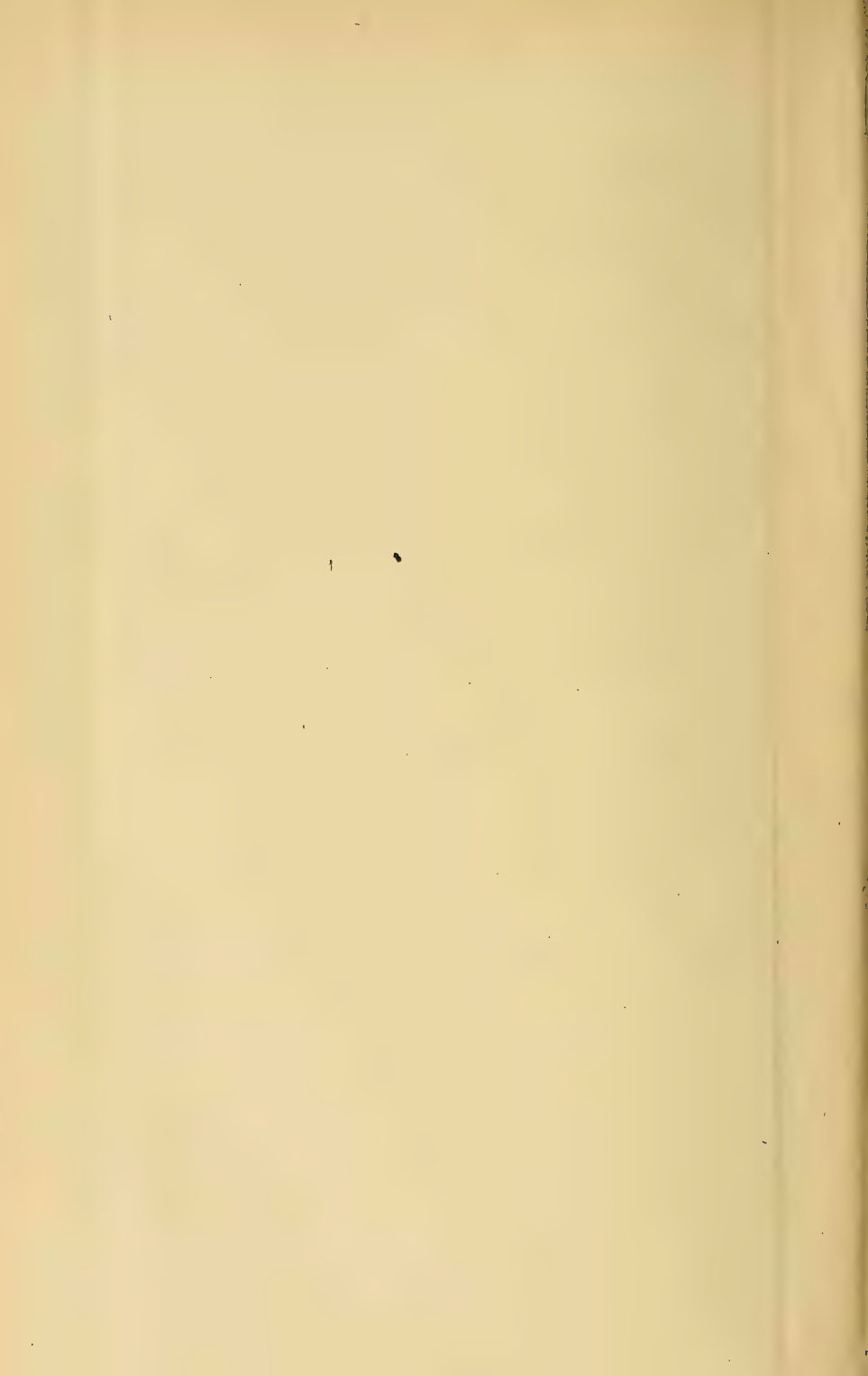
PROPERTY RETURN.
CHARLES OLMSTEAD, QUARTERMASTER-GENERAL.
CLASS C. QUARTERMASTER'S STORES.

	Company Chests																																
	Angers.	Bit Stocks.	Claw Chisels.	Hammers.	Crow Bars.	Marking Pots.	Stencil Plates, sets.	Padlocks, Brass.	Padlocks, Iron.	Flags, Rebel, Trophies.	Medicine Chests.	Sharpshooter's Badges.	Sharpshooter's Bars.	Marksman's Badges.	Marksman's Bars.	First-Class M. M. Bars.	First Class M. M. Badges.	Brigade Staff Horse Equipments, set.	Horse Equipments, sets, Governor and Staff.	Signal Kits, Regimental.	Signal Kits, Company.	Color Covers.	National Colors.	Markers, Infantry.	Targets, 200 yards.	Targets, 500 yards.	Patches.	Target Butts, Portable, Iron Plates.	Target Houses, Portable.	Hand Grenades.	Ambulance Wagons.	Hospital Knapsacks.	
Received from Gen. A. L. Goodrich, Jan. 12, 1887,	3	1	11	1	23	3	2	1	27	2	3	1	..	..	..	..	..	12	1	8	..	2	2	6	17	26	100,000	3	1	23	2	5
Received from Connecticut National Guard, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Received from purchase,	23	90	116	154	128	42	1	101	100	9	3
Total to be accounted for,	3	1	11	1	23	3	2	1	27	2	3	1	23	90	116	154	128	42	2	12	2	8	2	2	6	118	126	100,000	12	4	23	2	5
Issued to Connecticut National Guard, . . . . .	..	..	..	..	..	..	..	..	..	..	..	22	90	114	143	123	42	2	..	1	6	..	..	..	67	63	34,200	6	2	..	..	5
Remaining on hand June 30, 1887,	3	1	11	1	23	3	2	1	27	2	3	1	1	..	2	11	5	..	12	1	2	2	2	6	51	63	65,800	6	2	23	2	..	



PROPERTY RETURN.
CHARLES. OLMSTEAD, QUARTERMASTER-GENERAL.
CLASS D. ORDNANCE AND ORDNANCE STORES.

[illegible]





PROPERTY RETURN.

CHARLES OLMSTEAD, QUARTERMASTER-GENERAL.

CLASS D. ORDNANCE AND ORDNANCE STORES.—Continued.

[illegible]

STATE PROPERTY

IN THE HANDS OF THE

Connecticut National Guard,

Governor's Guards,

Independent Military Organizations,

Military Schools,

AND

City of New Haven,

June 30, 1887.

ADJUTANT-GENERAL'S OFFICE, HARTFORD.

1 Camp Desk.

BRIGADE HEADQUARTERS, C. N. G.

Brigadier-General Chas. P. Graham, Middletown.

- 1 State Color, Brigade.
- 3 Sets Horse Equipments.
- 2 N. C. Staff Swords.
- 3 N. C. Staff Coats.
- 3 N. C. Staff Trousers, prs.
- 3 N. C. Staff Caps.
- 2 N. C. Staff Blouses.
- 3 Helmets, Cords, and Plumes.
- 2 Overcoats.
- 1 Field Glass.
- 1 Camp Desk.
- 2 Chief Musicians' Chevrons, sets.
- 2 Sergeants' Chevrons, sets.
- 1 Bugle.
- 1 Bugle Cord and Tassel.
- 3 Artillery Belts and Plates.
- 3 Artillery Sabres and Scabbards.

FIRST REGIMENT, C. N. G.

Colonel William E. Cone, Hartford.

- 1 Springfield B. L. Rifle Musket, cal. .45.
- 1 Aiming Tripod.
- 1 Camp Desk.
- 20 Band Waist Belts and Plates
- 20 Music Pouches.
- 22 Band Coats.
- 22 Band Trousers, prs.
- 21 Band Blouses
- 22 Band Caps.
- 22 Band Helmets
- 22 Band Helmet Plumes.
- 5 N. C. Staff Coats.

- 5 N. C. Staff Trousers, prs.
- 5 N. C. Staff Blouses.
- 5 N. C. Staff Helmets.
- 5 N. C. Staff Fatigue Caps.
- 5 Overcoats.
- 2 Hospital Steward Chevrons, sets.
- 3 Drum-Major Chevrons, sets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 Commissary-Sergeant Chevrons, sets.
- 2 Sergeant-Major Chevrons, sets.
- 2 Chief Trumpeter Chevrons, sets.
- 1 Field Glass.
- 1 Regimental Flag, State color.
- 2 Regimental Flags, National color.
- 1 Post Flag.
- 2 Guidons
- 4 Color Belts.
- 4 Marker Flags
- 2 Color Covers.
- 1 Medicine Chest.
- 1 Skirmishing Bugle, Cord, and Tassel.
- 1 Case Surgical Instruments.
- 1 Leather Packing Case, for surgical instruments.
- 1 Signal Kit, company.
- 1 Hunter's Hatchet.
- 8 Gun Slings.
- 1 Hospital Knapsack.
- 5 N. C. Staff Swords.
- 5 N. C. Staff Belts and Plates.

Infantry Company A, Hartford, Captain EDWARD SCHULZE.

- 62 Springfield B. L. Rifled Muskets, cal. .45.
- 62 " " " Musket Bayonets.
- 62 Cartridge Boxes.
- 63 Bayonet Scabbards.
- 65 Waist Belts.
- 65 Waist Belt Plates.
- 65 Knapsacks.
- 2 Drums.

- 1 Drum Sling.
- 1 Drum Cover, linen.
- 2 Drum Sticks, pairs.
- 65 Uniform Coats.
- 65 " Trousers.
- 65 Blouses.
- 65 Fatigue Caps.
- 65 Helmets.
- 2 First Sergeant Chevrons, sets.
- 8 Sergeant Chevrons, sets.
- 16 Corporal Chevrons, sets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 1 Bugle, Cord, and Tassel.
- 65 Overcoats.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Sets Signal Service Devices.
- 1 Trumpeter Devices, set.

Infantry Company B, Hartford, Captain T. F. FLANIGAN.

- 60 Springfield B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 1 Spring Vise.
- 1 Iron Bench Vise.
- 61 Cartridge Boxes.
- 60 Bayonet Scabbards.
- 63 Waist Belts.
- 58 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers, linen.
- 2 Drum Sticks, pairs.
- 63 Uniform Coats.
- 63 Uniform Trousers, prs.
- 64 Blouses.
- 64 Fatigue Caps.
- 63 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.

- 2 First Sergeant Chevrons, sets.
- 8 Sergeant Chevrons, sets.
- 16 Corporal Chevrons, sets.
- 63 Overcoats.
- 2 Magenta Blankets.
- 3 Overcoat Cases.
- 2 Arm Chests.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Sets Signal Service Devices.
- 1 Trumpeter Devices, set.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, company.

Infantry Company D, New Britain, Captain A. N. BENNETT.

- 62 Springfield B. L. Rifled Muskets, cal. .45.
- 62 " " " Musket Bayonets.
- 64 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 64 Waist Belts.
- 65 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 3 Drum Slings.
- 2 Drum Sticks, pairs.
- 63 Uniform Coats.
- 64 Uniform Trousers, prs.
- 62 Blouses.
- 64 Fatigue Caps.
- 60 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant Chevrons, sets.
- 9 Sergeant Chevrons, sets.
- 18 Corporal Chevrons, sets.
- 64 Overcoats.
- 3 Arm Chests.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed
- 4 Sets Signal Service Devices.
- 1 Signal Kit, company.
- 1 Bugle, Cord, and Tassel.

Infantry Company E, New Britain, Capt. A. L. THOMPSON.

- 63 Springfield B. L. Rifled Muskets, cal. .45.
- 63 " " " Musket Bayonets.
- 64 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 64 Waist Belts.
- 64 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 3 Drum Sticks, pairs.
- 3 Drum Slings.
- 65 Uniform Coats.
- 65 Uniform Trousers.
- 65 Blouses.
- 65 Fatigue Caps.
- 65 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant Chevrons, sets.
- 8 Sergeant Chevrons, sets.
- 16 Corporal Chevrons, sets.
- 63 Overcoats.
- 2 Arm Chests.
- 1 Trumpeter Devices, set.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, company.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 3 Sets Signal Service Devices.
- 3 Wipers, Bristle.
- 1 Target House, Portable.
- 3 Iron Plates, Target Butt.

Infantry Company F, Hartford, Captain GEORGE B. NEWTON.

- 77 Springfield B. L. Rifled Muskets, cal. .45.
- 77 " " " Musket Bayonets.
- 70 Cartridge Boxes.
- 70 Bayonet Scabbards.
- 70 Waist Belts, new.
- 77 Waist Belt Plates.

- 64 Knapsacks.
- 2 Drums.
- 3 Drum Slings.
- 2 Drum Covers.
- 2 Drum Sticks, pairs.
- 60 Uniform Coats.
- 60 " Trousers, prs.
- 64 Blouses.
- 70 Fatigue Caps.
- 61 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant Chevrons, sets.
- 16 Corporal " "
- 64 Overcoats.
- 2 Overcoat cases.
- 500 Rounds of Ball Cartridges, cal. .45, sealed.
- 4 Sets Signal Service Devices.
- 1 Bugle, Cord, and Tassel.

Infantry Company G, So. Manchester, Captain JOHN HICKEY.

- 60 Springfield B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 61 Cartridge Boxes.
- 61 Bayonet Scabbards.
- 64 Waist Belts.
- 64 Waist Belt Plates.
- 60 Knapsacks.
- 2 Drums.
- 3 Drum Slings.
- 2 Drum Sticks, pairs.
- 2 Drum Covers, linen.
- 64 Uniform Coats.
- 64 " Trousers, prs.
- 64 Blouses.
- 64 Fatigue Caps.
- 64 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "

- 8 Sergeant Chevrons, sets.
- 16 Corporal " "
- 64 Overcoats.
- 3 Arm Chests.
- 1 Case Equipment Packing.
- 1 Overcoat Case.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 2 Sets Signal Service Devices.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, Company.

Infantry Company H, Hartford, Captain W. H. McLEAN.

- 64 Springfield B. L. Rifled Muskets, cal. .45.
- 64 " " " Musket Bayonets.
- 64 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 64 Waist Belts.
- 79 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 2 Drum Covers.
- 64 Uniform Coats.
- 64 " Trousers, prs.
- 64 Blouses.
- 64 Fatigue Caps.
- 64 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 64 Overcoats.
- 1 Arm Chest.
- 2 Overcoat Cases.
- 500 Rounds of Ball Cartridges, cal. .45, sealed.
- 4 Magenta Blankets.
- 3½ Sets Signal Service Devices.
- 1 Trumpeter Devices, Sets.
- 1 Bugle, Cord, and Tassel.

Infantry Company K, Hartford, Captain SAMUEL O. PRENTICE.

- 63 Springfield B. L. Rifled Muskets, cal. .45.
- 63 " " " Musket Bayonets.
- 6 Tumbler Punches.
- 3 Spring Vises.
- 64 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 64 Waist Belts.
- 79 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 2 Drum Sticks, pairs.
- 64 Uniform Coats.
- 64 Uniform Trousers, pairs.
- 64 Blouses.
- 64 Fatigue Caps.
- 64 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 64 Overcoats.
- 3 Arm Chests.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Sets Signal Service Devices.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, Company.

FIRST MACHINE GUN PLATOON, HARTFORD.

Lieut. Henry Avery.

- 1 Gatling Gun, complete.
- 1 Paulin, Gatling Gun.
- 1 Double Set Harness, Gatling Gun.
- 2 Halters.
- 2 Collars.
- 2 Nose Bags.

- 8 Artillery Sabres and Scabbards.
- 8 " Sabre Belts.
- 8 " Sabre Belt Plates.
- 1 " Guidon, Staff, and Cover.
- 8 Uniform Coats.
- 8 " Trousers, prs.
- 8 Blouses.
- 8 Helmets and Plumes.
- 8 Fatigue Caps.
- 8 Overcoats.
- 2 Sergeant Chevrons, sets.
- 2 Corporal " "
- 2 Artillery Blankets.
- 3 Wrenches.
- 1 Screw Driver.
- 50 Tin Ammunition Cases.
- 1 Worm Gear Clamp.
- 4000 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Ammunition Haversacks.
- 1 Case Packing.
- 250 Dummy Cartridges.
- 1 Watering Bucket.
- 1 Artillery Whip.
- 1 Pole Yoke.
- 1 Oil Cup.

SECOND REGIMENT.

Colonel Walter J. Leavenworth, Wallingford.

- 3 Peabody B. L. Rifle Muskets, cal. .45.
- 1 Aiming Tripod.
- 20 Waist Belts.
- 20 Waist Belt Plates.
- 1 N. C. Staff Cross Belt Plate.
- 1 N. C. O. Sword.
- 1 Camp Desk.
- 5 N. C. Staff Coats.
- 5 " " Trousers, pairs.
- 6 Blouses.

- 5 Fatigue Caps.
- 5 Helmets.
- 20 Band Coats.
- 20 " Trousers, pairs.
- 20 " Blouses.
- 20 " Fatigue Caps.
- 20 " Helmets.
- 2 Sergeant-Major Chevrons, sets.
- 5 Drum-Major's Chevrons, sets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 Commissary-Sergeant Chevrons, sets.
- 2 Hospital Steward Chevrons, sets.
- 1 Fife-Major Chevron, set.
- 6 Scarlet Blankets.
- 1 Regimental Flag, State color.
- 1 " " National color.
- 5 Guidons.
- 2 Color Belts.
- 2 Color Waist Belts and Plates.
- 4 Marker Flags.
- 1 Waist Belt and Plate.
- 20 Music Pouches.
- 26 Overcoats.
- 1 Drum-Major's Uniform, complete.
- 1 Overcoat Case.
- 1 Signal Kit, Regimental.
- 1 Medicine Chest.
- 5 Signal Flags, Red.
- 5 " " White.
- 1 Colt's Revolver, cal. .45.
- 1 " " Holster.
- 1 Field Glass.
- 1 Hospital Knapsack.
- 1 Arm Brassard.
- 1 Case Surgical Instruments.
- 1 Leather Packing Case for Surgical Instruments.

Infantry Company A, Waterbury, Captain F. L. BLAKELEY.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.

- 64 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 65 Waist Belts.
- 43 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 3 Drum Sticks, pairs.
- 65 Uniform Coats.
- 65 " Trousers, pairs.
- 65 Blouses.
- 68 Fatigue Caps.
- 65 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 64 Scarlet Blankets.
- 2 Arm Chests.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 65 Overcoats.
- 2 Overcoat Cases.
- 4 Sets Signal Service Devices.
- 1 Signal Kit, Company.
- 1 Hunter's Hatchet.
- 1 N. C. O. Sword.
- 1 Cross Belt Plate.

Infantry Company B, New Haven, Captain JOHN GUTT.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 62 Cartridge Boxes.
- 63 Bayonet Scabbards.
- 65 Waist Belts.
- 38 Waist Belt Plates.
- 60 Knapsacks
- 2 Drums.

- 3 Drum Slings.
- 4 Drum Covers.
- 2 Drum Sticks, pairs.
- 60 Uniform Coats.
- 60 " Trousers.
- 60 Blouses.
- 63 Fatigue Caps.
- 64 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 59 Scarlet Blankets.
- 3 Arm Chests.
- 2 Cases Equipment Packing.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 60 Overcoats.
- 2 Overcoat Cases.
- 1 Hunter's Hatchet.
- 2 Colt's Revolvers.
- 2 Holsters.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, Company.

Infantry Company C, New Haven, Captain JOHN GARRITY.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 60 Cartridge Boxes.
- 60 Bayonet Scabbards.
- 60 Waist Belts.
- 46 Waist Belt Plates.
- 60 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 1 Drum Cover.
- 2 Drum Sticks, pairs.
- 60 Uniform Coats.
- 60 " Trousers prs

60	Blouses.			
63	Fatigue Caps.			
63	Helmets.			
2	Quartermaster-Sergeant Chevrons, sets.			
2	First	"	"	"
8	Sergeant		"	"
16	Corporal		"	"
60	Scarlet Blankets.			
3	Arm Chests.			
6	Cases Equipment Packing.			
1	Blanket Case.			
500	Rounds Ball Cartridges, cal. .45, sealed.			
60	Overcoats.			
2	Overcoat Cases.			
1	Signal Kit, Company.			
2	Colt's Revolvers.			
2	Holsters.			
2	Sets Signal Service Devices.			

Infantry Company D, New Haven, Captain ANDREW H. EMBLER.

60	Peabody B. L. Rifled Muskets, cal. .45.			
60	" " " Musket Bayonets.			
62	Cartridge Boxes.			
62	Bayonet Scabbards.			
65	Waist Belts.			
64	Waist Belt Plates.			
65	Knapsacks.			
1	Throg.			
1	N. C. O. Sword.			
2	Drums.			
1	Drum Sticks, pair.			
65	Uniform Coats.			
65	" Trousers, prs.			
65	Blouses.			
65	Fatigue Caps.			
65	Helmets.			
2	Quartermaster-Sergeant Chevrons, sets.			
2	First	"	"	"
8	Sergeant		"	"
16	Corporal		"	"

- 65 Scarlet Blankets.
- 3 Arm Chests.
- 3 Cases Equipment Packing.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 65 Overcoats.
- 2 Overcoat Cases.
- 2 Sets Signal Service Devices.
- 1 Signal Kit, Company.
- 2 Colt's Revolvers.
- 2 Holsters.
- 1 Trumpeter Devices, sets.
- 1 Bugle, Cord, and Tassel.

Infantry Company E, New Haven, Captain THEODORE H. SUCHER.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 64 Cartridge Boxes.
- 2 Cartridge Box Belts.
- 62 Bayonet Scabbards.
- 1 Bayonet Scabbard Belt.
- 69 Waist Belts.
- 54 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 64 Uniform Coats.
- 64 " Trousers, prs.
- 64 Blouses.
- 64 Fatigue Caps.
- 64 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 60 Scarlet Blankets.
- 3 Arm Chests.
- 2 Blanket Cases.

500 Rounds Ball Cartridges, cal. .45, sealed.

64 Overcoats.

2 Overcoat Cases.

4 Sets Signal Service Devices.

1 Signal Kit, Company.

2 Colt's Revolvers.

2 Holsters.

1 Hunter's Hatchet.

1 Bugle, Cord, and Tassel.

Infantry Company F, New Haven, Captain CHARLES C. FORD.

60 Peabody B. L. Rifled Muskets, cal. .45.

60 " " " Musket Bayonets.

60 Cartridge Boxes.

60 Bayonet Scabbards.

60 Waist Belts.

60 Waist Belt Plates.

60 Knapsacks.

3 Drums.

3 Drum Slings.

3 Drum Sticks, pairs.

58 Uniform Coats.

58 " Trousers, prs.

58 Blouses.

57 Fatigue Caps.

58 Helmets.

2 Quartermaster-Sergeant Chevrons, sets,

2 First " " "

8 Sergeant " "

16 Corporal " "

60 Scarlet Blankets.

3 Arm Chests.

2 Cases Equipment Packing.

2 Blanket Cases.

500 Rounds Ball Cartridges, cal. .45, sealed,

64 Overcoats.

2 Overcoat Cases.

2 Gun Slings.

2 Colt's Revolvers,

- 1 Signal Kit, Company.
- 2 Holsters.

Infantry Company G, Waterbury, Captain ALFRED J. WOLFF.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 62 Cartridge Boxes.
- 62 Bayonet Scabbards.
- 67 Waist Belts.
- 98 Waist Belt Plates.
- 2 Cross Belt Plates.
- 63 Knapsacks.
- 2 Throgs.
- 1 N. C. O. Sword.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 58 Uniform Coats.
- 61 Uniform Trousers, pairs.
- 64 Blouses.
- 58 Fatigue Caps.
- 58 Helmets.
- 3 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant Chevrons, "
- 8 Sergeant Chevrons, sets.
- 16 Corporal " "
- 63 Scarlet Blankets.
- 2 Arm Chests.
- 2 Cases Equipment Packing.
- 1 Blanket Case.
- 1 Signal Kit, Company.
- 2 Colt's Revolvers.
- 2 Holsters.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 65 Overcoats.
- 4 sets Signal Service Devices.
- 2 Trumpeter Devices.

Infantry Company H, Middletown, Capt. WESLEY U. PEARNE.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " Musket Bayonets.
- 2 Screw Drivers.
- 1 Wiper, bristle.
- 57 Cartridge Boxes.
- 57 Bayonet Scabbards.
- 57 Waist Belts.
- 93 Waist Belt Plates.
- 59 Knapsacks
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 3 Drum Sticks, pairs.
- 50 Uniform Coats.
- 50 Uniform Trousers, pairs.
- 60 Blouses.
- 50 Fatigue Caps.
- 53 Helmets.
- 60 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 55 Scarlet Blankets.
- 3 Arm Chests.
- 3 Cases Equipment Packing.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 2 Sets Signal Service Devices.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.
- 1 Gun Sling.
- 1 Target House, Portable.
- 6 Iron Plates, Target Butts.

Infantry Company I, Meriden, Captain HENRY B. WOOD.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 4 Screw Drivers.
- 58 Cartridge Boxes.
- 58 Bayonet Scabbards.
- 60 Waist Belts.
- 35 Waist Belt Plates.
- 60 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 61 Uniform Coats.
- 61 Uniform Trousers, pairs.
- 57 Blouses.
- 61 Fatigue Caps.
- 61 Helmets.
- 62 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant Chevrons, sets.
- 8 Sergeant Chevrons, sets.
- 16 Corporal " "
- 57 Scarlet Blankets.
- 3 Arm Chests.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Sets Signal Service Devices.
- 1 Signal Kit, Company.
- 2 Colt's Revolvers.
- 2 Holsters.

Infantry Company K, Wallingford, Captain B. A. TREAT.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 1 Screw Driver.
- 63 Cartridge Boxes.
- 66 Bayonet Scabbards.
- 69 Waist Belts.

- 51 Waist Belt Plates.
- 2 Cross Belt Plates.
- 60 Knapsacks.
- 1 N. C. O. Sword.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 58 Uniform Coats.
- 58 Uniform Trousers, pairs.
- 63 Blouses.
- 58 Fatigue Caps.
- 58 Helmets.
- 60 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 57 Scarlet Blankets.
- 3 Arm Chests.
- 1 Case Equipment Packing.
- 1 Blanket Case.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 2 Spring Vises.
- 4 Sets Signal Service Devices.
- 1 Signal Kit, Company.
- 2 Colt's Revolvers.
- 2 Holsters.
- 1 Hunter's Hatchet.
- 1 Bugle, Cord, and Tassel.

SECOND MACHINE GUN PLATOON, NEW HAVEN.

Lieut. Wm. H. Sears.

- 1 Gatling Gun, complete.
- 1 Paulin, Gatling Gun.
- 1 Double Set Harness, Gatling Gun
- 2 Collars.
- 9 Colt's Revolvers and Holsters
- 1 Hammer.

- 1 Pair Stirrups and Straps.
- 2 Halters.
- 2 Nose Bags.
- 8 Artillery Sabres and Scabbards.
- 8 " Sabre Belts.
- 8 " Sabre Belt Plates.
- 2 " Blankets.
- 1 " Guidon, Staff, and Cover.
- 8 Uniform Coats.
- 8 " Trousers, pairs.
- 8 Blouses.
- 8 Helmets and Plumes.
- 8 Fatigue Caps.
- 8 Overcoats.
- 2 Sergeant Chevrons, sets.
- 2 Corporal " "
- 2 Oil Cups.
- 1 Pole Yoke.
- 1 Spurs, pair.
- 2 Watering Buckets.
- 2 Whips.
- 4 Wrenches.
- 1 Screw Driver.
- 1 Worm Gear Clamp.
- 50 Tin Ammunition Cases.
- 4000 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Ammunition Haversacks.
- 250 Dummy Cartridges.

THIRD REGIMENT.

Colonel George Haven, New London.

- 1 Peabody B. L. Rifled Musket, cal. .45.
- 1 Aiming Tripod.
- 5 N. C. Staff Swords.
- 4 N. C. Staff Sword Belts, Plates, and Throgs
- 1 Drum.
- 1 Drum Sticks, pair.
- 1 Bugle, Cord, and Tassel.
- 1 Camp Desk.

6	N. C. Staff Coats.		
6	" "	Trousers, pairs.	
6	" "	Blouses.	
4	" "	Fatigue Caps.	
6	" "	Helmets.	
20	Band Coats.		
20	"	Trousers, pairs.	
20	"	Blouses.	
2	Target Houses, Wood.		
6	Iron Plates, Target Butt.		
1	Hospital Knapsack.		
26	Overcoats.		
1	Overcoat Case.		
2	Quartermaster-Sergeant Chevrons, sets.		
2	Hospital Steward	"	"
1	Fife-Major	"	"
2	Sergeant-Major	"	"
4	Drum-Major	"	"
2	Commissary Sergeant	"	"
2	Chief Trumpeter	"	"
1	Chief Musician	"	"
1	Regimental Flag, State Color.		
1	" "	National Color.	
2	Guidons.		
2	Color Belts.		
2	Color Waist Belts and Plates.		
4	Marker Flags.		
1	Medicine Chest.		
1	Signal Kit, Regimental.		
1	Color Cover.		
1	Half Axe.		
1	Case Surgical Instruments.		
1	Leather Packing Case for Surgical Instruments.		
1	Field Glass.		
1	Case Equipment Packing.		

Infantry Company A, New London, Captain JAMES MORAN.

50	Peabody B. L. Rifled Muskets, cal. .45.
50	" " " Musket Bayonets.

- 2 Screw Drivers.
- 53 Cartridge Boxes.
- 53 Bayonet Scabbards.
- 55 Waist Belts.
- 55 Waist Belt Plates.
- 55 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 55 Uniform Coats.
- 55 " Trousers, pairs.
- 55 Blouses.
- 55 Fatigue Caps.
- 54 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 55 Overcoats.
- 3 Arm Chests.
- 4 Cases Equipment Packing.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 1 Signal Kit, Company.
- 4 Signal Service Devices, sets.
- 1 Bugle, Cord, and Tassel.

Infantry Company B, Pawcatuck, Captain DANIEL KELEHER.

- 57 Peabody B. L. Rifled Muskets, cal. .45.
- 57 " " " Musket Bayonets.
- 3 Screw Drivers.
- 1 Spring Vise.
- 58 Cartridge Boxes.
- 58 Bayonet Scabbards.
- 61 Waist Belts.
- 61 Waist Belt Plates.
- 61 Knapsacks.
- 2 Drums.
- 2 Drum Slings.

2	Drum Sticks, pairs.			
55	Uniform Coats.			
55	“ Trousers.			
65	Blouses.			
62	Fatigue Caps.			
55	Helmets.			
2	Quartermaster-Sergeant Chevrons, sets.			
2	First	“	“	“
8	Sergeant		“	“
16	Corporal		“	“
61	Overcoats.			
3	Arm Chests.			
2	Overcoat Cases.			
4	Signal Service Devices, sets.			
4	Wipers, bristle.			
1	Signal Kit, Company.			
1	Bugle, Cord, and Tassel.			

Infantry Company C, Norwich, Captain THOMAS B. LINTON.

60	Peabody B. L. Rifled Muskets, cal. .45.			
59	“ “ “ Musket Bayonets.			
58	Cartridge Boxes.			
57	Bayonet Scabbards.			
59	Waist Belts.			
55	Waist Belt Plates.			
58	Knapsacks.			
2	Drums.			
1	Drum Sling.			
2	Drum Sticks, pairs.			
45	Uniform Coats.			
45	Uniform Trousers, pairs.			
50	Blouses.			
59	Fatigue Caps.			
45	Helmets.			
2	Quartermaster-Sergeant Chevrons, sets.			
2	First	“	“	“
8	Sergeant		“	“
16	Corporal		“	“
57	Overcoats.			

- 3 Arm Chests.
- 1 Case Equipment Packing.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Signal Service Devices, sets.
- 6 Wipers, bristle.
- 1 Signal Kit, Company.
- 1 Hunter's Hatchet.

*Infantry Company D, New London, Captain FREDERICK E.
ST. CLARE.*

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 55 Cartridge Boxes.
- 55 Bayonet Scabbards.
- 57 Waist Belts.
- 57 Waist Belt Plates.
- 60 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 1½ Drum Sticks, pairs.
- 56 Uniform Coats.
- 56 " Trousers, pairs.
- 59 Blouses.
- 59 Fatigue Caps.
- 59 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 59 Overcoats.
- 3 Arm Chests.
- 1 Case Equipment Packing.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.

- 1 Gun Sling.
- 1 Hunter's Hatchet.
- 1 Bugle, Cord, and Tassel.

Infantry Company E, Willimantic, Captain PATRICK FITZPATRICK.

- 63 Peabody B. L. Rifled Muskets, cal. .45.
- 63 " " " Musket Bayonets.
- 9 Tumbler Punches.
- 2 Spring Vises.
- 44 Cartridge Boxes.
- 44 Bayonet Scabbards.
- 44 Waist Belts, new.
- 57 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 1 Drum Sling.
- 3 Drum sticks, pairs.
- 55 Uniform Coats.
- 55 " Trousers, pairs.
- 57 Blouses.
- 57 Fatigue Caps.
- 55 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 62 Overcoats.
- 2 Arm Chests.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 3 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Holster.
- 1 Gun Sling.
- 1 Colt's Revolver.
- 1 Hunter's Hatchet.
- 1 Bugle, Cord, and Tassel.

Infantry Company F, Danielsonville, Captain PAUL L. GIBSON.

- 50 Peabody B. L. Rifled Muskets, cal. .45.
- 50 " " " Musket Bayonets.
- 2 Screw Drivers.
- 12 Tumbler Punches.
- 50 Cartridge Boxes.
- 50 Bayonet Scabbards.
- 52 Waist Belts.
- 52 Waist Belt Plates.
- 46 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 43 Uniform Coats.
- 43 " Trousers, pairs.
- 97 Blouses.
- 52 Fatigue Caps.
- 43 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 47 Overcoats.
- 3 Arm Chests.
- 4 Cases Equipment Packing.
- 2 Overcoat Cases.
- 4 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Target House.
- 6 Iron Plates, Target Butts.
- 1 Bugle, Cord, and Tassel.

Infantry Company G, Putnam, Captain CLINTON A. WINSLOW.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 2 Tumbler Punches.
- 1 Spring Vise.
- 52 Cartridge Boxes.
- 52 Bayonet Scabbards.

55	Waist Belts.			
55	Waist Belt Plates.			
60	Knapsacks.			
2	Drums.			
2	Drum Slings.			
2	Drum Sticks, pairs.			
50	Uniform Coats.			
50	“	Trousers, pairs.		
50	Blouses.			
54	Fatigue Caps.			
50	Helmets.			
2	Quartermaster-Sergeant Chevrons, sets.			
2	First	“	“	“
8	Sergeant		“	“
16	Corporal		“	“
57	Overcoats.			
3	Arm Chests.			
1	Case Equipment Packing.			
2	Overcoat Cases.			
500	Rounds Ball Cartridges, cal. .45, sealed.			
4	Signal Service Devices, sets.			
1	Target House.			
3	Iron Plates, Target Butt.			
1	Signal Kit, Company.			
1	Colt's Revolver.			
1	Hunter's Hatchet.			
1	Holster.			
1	Bugle, Cord, and Tassel.			

Infantry Company I, New London, Captain A. N. STERRY.

60	Peabody B. L. Rifled Muskets, cal. .45.			
60	“	“	“	Musket Bayonets.
57	Cartridge Boxes.			
57	Bayonet Scabbards.			
60	Waist Belts.			
60	Waist Belt Plates.			
58	Knapsacks.			
2	Drums.			
2	Drum Slings.			

- 2 Drum Covers.
- 3 Drum Sticks, pairs.
- 53 Uniform Coats.
- 62 " Trousers, pairs.
- 64 Blouses.
- 60 Fatigue Caps.
- 60 Helmets.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 63 Overcoats.
- 3 Arm Chests.
- 2 Cases Equipment Packing.
- 2 Overcoat Cases.
- 500 Rounds Ball Cartridges, cal. .45; sealed.
- 2 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Gun Sling.
- 1 Hunter's Hatchet.
- 1 Bugle, Cord, and Tassel.

THIRD MACHINE GUN PLATOON, NEW LONDON.

Lieut. Charles F. Chaney.

- 1 Gatling Gun, complete.
- 1 " " Chest.
- 1 Paulin, Gatling Gun.
- 1 Double Set Gatling Gun Harness.
- 2 Halters.
- 2 Collars.
- 2 Nose Bags.
- 8 Artillery Sabres and Scabbards.
- 8 " Sabre Belts.
- 8 " Sabre Belt Plates.
- 1 " Guidon, Staff, and Cover.
- 8 Uniform Coats.
- 8 " Trousers, pairs.

- 8 Blouses.
- 8 Helmets and Plumes.
- 8 Fatigue Caps.
- 8 Overcoats.
- 2 Sergeant Chevrons, sets.
- 2 Corporal " "
- 2 Artillery Blankets.
- 3 Wrenches.
- 2 Screw Drivers.
- 50 Tin Ammunition Cases.
- 1 Worm Gear Clamp.
- 4000 Rounds Ball Cartridges, cal. .45; sealed.
- 4 Ammunition Haversacks.
- 2 Cases Packing.
- 250 Dummy Cartridges.
- 8 Revolvers and Holsters.
- 1 Cord and Tassel for Bugle.

FOURTH REGIMENT.

Colonel Thomas L. Watson, Bridgeport.

- 7 Peabody B. L. Rifled Muskets, cal. .45.
- 5 Waist Belts.
- 5 Waist Belt Plates.
- 5 N. C. O. Swords.
- 1 Camp Desk.
- 20 Band Coats.
- 20 " Trousers, pairs.
- 20 " Blouses.
- 20 " Fatigue Caps.
- 20 " Helmets.
- 25 Overcoats.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 Commissary " " "
- 2 Hospital Steward " "
- 4 Drum-Major " "
- 2 Sergeant-Major " "
- 2 Chief Trumpeter " "
- 4 N. C. Staff Coats.
- 4 " " Trousers, pairs.

- 3 N. C. Staff Blouses.
- 4 " " Fatigue Caps.
- 4 " " Helmets.
- 20 Music Pouches.
- 20 Band Waist Belts and Plates.
- 1 Regimental Flag, State Color.
- 1 " " National Color.
- 2 Guidons.
- 4 Marker Flags.
- 4 Color Belts.
- 1 Drum-Major's Uniform, complete.
- 2 Color Covers.
- 2 Medicine Chests.
- 1 Signal Kit, Regimental.
- 1 Case Surgical Instruments.
- 1 Leather Packing Case for Surgical Instruments.
- 1 Hospital Knapsack.

Infantry Company B, Bridgeport, Captain GEORGE W. CORNELL.

- 62 Peabody B. L. Rifled Muskets, cal. .45.
- 62 " " " Musket Bayonets.
- 62 Cartridge Boxes.
- 62 Bayonet Scabbards.
- 64 Waist Belts.
- 64 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 2 Drum Sticks, pairs.
- 61 Uniform Coats.
- 61 Uniform Trousers, pairs.
- 61 Blouses.
- 64 Fatigue Caps.
- 58 Helmets.
- 64 Overcoats.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "

- 64 Blue Blankets.
- 3 Arm Chests.
- 4 Cases Equipment Packing.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Sets Signal Service Devices.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.
- 1 Bugle, Cord, and Tassel.

Infantry Company C, Stamford, Captain WILLIAM F. DANIEL.

- 62 Peabody B. L. Rifled Muskets, cal. .45.
- 62 " " " Musket Bayonets.
- 62 Cartridge Boxes.
- 62 Bayonet Scabbards.
- 64 Waist Belts.
- 64 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 61 Uniform Coats.
- 61 Uniform Trousers, pairs.
- 65 Blouses.
- 64 Fatigue Caps.
- 62 Helmets.
- 64 Overcoats.
- 1 Overcoat Case.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 64 Blue Blankets.
- 3 Arm Chests.
- 2 Blanket Cases.
- 5 Cases Equipment Packing.
- 500 Rounds Ball Cartridges, cal. .45, sealed.

- 2 Sets Signal Service Devices.
- 2 Screw Drivers.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.
- 1 Target House.
- 3 Iron Plates, Target Butt.

Infantry Company D, South Norwalk, Captain RUSSELL FROST.

- 63 Peabody B. L. Rifled Muskets, cal. .45.
- 62 " " " Musket Bayonets.
- 62 Cartridge Boxes.
- 62 Bayonet Scabbards.
- 65 Waist Belts.
- 65 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers, linen.
- 2 Drum Sticks, pairs.
- 63 Uniform Coats.
- 63 " Trousers, pairs.
- 64 Blouses.
- 65 Fatigue Caps.
- 65 Helmets.
- 64 Overcoats.
- 2 Overcoat Cases.
- 1 Quartermaster-Sergeant Chevrons, set.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 63 Blue Blankets.
- 3 Arm Chests.
- 2 Blanket Cases.
- 2 Cases Equipment Packing.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 3 Signal Service Devices, sets.

- 1 Iron Bench Vise.
- 2 Target Houses.
- 6 Iron Plates, Target Butts.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, Company.
- 1 Trumpeter's Device, set.

Infantry Company E, Bridgeport, Captain JAMES SHERIDAN.

- 63 Peabody B. L. Rifled Muskets, cal. .45.
- 63 " " " Musket Bayonets.
- 64 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 64 Waist Belts.
- 72 Waist Belt Plates.
- 62 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 2 Drum Sticks, pairs.
- 52 Uniform Coats.
- 52 " Trousers, pairs.
- 61 Blouses.
- 64 Fatigue Caps.
- 56 Helmets.
- 64 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 64 Blue Blankets.
- 3 Arm Chests.
- 2 Blanket Cases.
- 500 Round Ball Cartridges, cal. .45, sealed.
- 4 Signal Service Devices, sets.
- 2 Cases Equipment Packing.

- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.

Infantry Company F, Norwalk, Captain ADDISON A. BETTS.

- 50 Peabody B. L. Rifled Muskets, cal. .45.
- 50 " " " Musket Bayonets.
- 6 Screw Drivers.
- 56 Cartridge Boxes.
- 56 Bayonet Scabbards.
- 58 Waist Belts.
- 58 Waist Belt Plates.
- 56 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers, linen.
- 2 Drum Sticks, pairs.
- 54 Uniform Coats.
- 54 " Trousers, pairs.
- 57 Blouses.
- 56 Fatigue Caps.
- 53 Helmets.
- 58 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeants Chevrons sets.
- 2 First Sergeant " "
- 8 Sergeant " "
- 16 Corporal " "
- 56 Blue Blankets.
- 3 Arm Chests.
- 4 Cases, Equipment Packing.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Bugle, Cord, and Tassel.

- 1 Hunter's Hatchet.
- 2 Trumpeter's Devices, sets.

Infantry Company G, Danbury, Captain FRANK R. NASH.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 6 Wipers, Bristles.
- 3 Screw Drivers.
- 1 Tumbler Punch.
- 1 Spring Vise.
- 60 Cartridge Boxes.
- 64 Bayonet Scabbards.
- 64 Waist Belts.
- 64 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 3 Drum Sticks, pairs.
- 62 Uniform Coats.
- 63 " Trousers, pairs.
- 63 Blouses.
- 64 Fatigue Caps.
- 63 Helmets.
- 64 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant " "
- 8 " " "
- 16 Corporal " "
- 64 Blue Blankets.
- 3 Arm Chests.
- 2 Cases Equipment Packing.
- 1 Blanket Case.
- 500 Rounds Ball Cartridges, cal. .45, sealed
- 1 Signal Kit, company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.

- 1 Target House.
- 6 Iron Plates, target butts.
- 3 Signal Service Devices, sets.
- 1 Bugle, Cord, and Tassel.
- 1 Trumpeter's Device, set.

Infantry Company I, Winsted, Captain EDWARD FINN.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 59 " " " Musket Bayonets.
- 6 Tumbler Punches.
- 2 Spring Vises.
- 54 Cartridge Boxes.
- 54 Bayonet Scabbards.
- 55 Waist Belts.
- 55 Waist Belt Plates.
- 62 Knapsacks.
- 3 Drums.
- 2 Drum Slings.
- 2 Drum Sticks, pairs.
- 49 Uniform Coats.
- 51 " Trousers, pairs.
- 60 Blouses.
- 60 Fatigue Caps.
- 49 Helmets.
- 57 Overcoats.
- 1 Overcoat Case.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant " "
- 8 Sergeant " "
- 16 Corporal " "
- 58 Blue Blankets.
- 3 Arm Chests.
- 1 Case Equipment Packing.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.
- 2 Signal Service Devices, sets.
- 1 Cord and Tassel for Bugle.

Infantry Company K, Stratford, Captain EUGENE MOREHOUSE.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 4 Screw Drivers.
- 59 Cartridge Boxes.
- 59 Bayonet Scabbards.
- 58 Waist Belts.
- 56 Waist Belt Plates.
- 60 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers.
- 2 Drum Sticks, pairs.
- 51 Uniform Coats.
- 51 " Trousers, pairs.
- 60 Blouses.
- 59 Fatigue Caps.
- 51 Helmets.
- 59 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant " "
- 8 Sergeant " "
- 16 Corporal " "
- 54 Blue Blankets.
- 4 Arm Chests.
- 2 Cases Equipment Packing.
- 2 Blanket Cases.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 2 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Colt's Revolver.
- 1 Hunter's Hatchet.
- 1 Holster.
- 1 Bugle, Cord, and Tassel.

FOURTH MACHINE GUN PLATOON, BRIDGEPORT.

Lieut. Edwin F. Hall.

- 1 Gatling Gun, complete.
- 1 Gatling Gun Chest.

- 1 Paulin, Gatling Gun.
- 1 Double Set Gatling Gun Harness.
- 2 Collars.
- 2 Halters.
- 2 Nose Bags.
- 8 Artillery Sabres and Scabbards.
- 8 " Sabre Belts.
- 8 " Sabre Belt Plates.
- 2 " Blankets.
- 1 " Guidon, Staff, and Cover.
- 8 Uniform Coats.
- 8 " Trousers, pairs.
- 8 Blouses.
- 8 Helmets and Plumes.
- 8 Fatigue Caps.
- 8 Overcoats.
- 2 Sergeant Chevrons, sets.
- 2 Corporal " "
- 2 Screw Drivers.
- 50 Tin Ammunition Cases.
- 3 Wrenches.
- 1 Worm Gear Clamp.
- 4000 Rounds Ball Cartridges, cal. .45, sealed.
- 250 Dummy Cartridges, cal. .45.
- 4 Ammunition Haversacks.
- 2 Cases Packing.

FIFTH BATTALION.

Major Frank M. Welch, Bridgeport.

- 2 Waist Belts.
- 2 Waist Belt Plates.
- 2 Color Belts.
- 4 N. C. Staff Swords, Belts, and Plates.
- 5 N. C. Staff Swords.
- 1 Drum.
- 2 Drum Slings.
- 1 Drum Cover.
- 2 Drum Sticks, pairs.
- 5 N. C. Staff Coats.
- 5 N. C. Staff Trousers, pairs.

- 5 N. C. Staff Blouses.
- 3 N. C. Staff Caps.
- 5 Helmets.
- 1 Flag, State Color.
- 1 " National Color.
- 2 Marker Flags.
- 2 Guidons.
- 2 Quartermaster Sergeant Chevrons, sets.
- 1 Sergeant-Major " "
- 2 Drum-Major " "
- 2 Chief Trumpeter " "
- 2 Signal Sergeant " "
- 1 Camp Desk.
- 5 Overcoats.
- 3 Knapsacks.
- 2 Color Covers.
- 1 Medicine Chest.
- 1 Case Surgical Instruments.
- 1 Leather Packing Case for Surgical Instruments.
- 1 Bugle, Cord, and Tassel.
- 1 Signal Kit, Regimental.
- 1 Hospital Knapsack.
- 3 Cross Belt Plates.

Infantry Company A, Fifth Battalion, New Haven, Captain

DANIEL S. LATHROP.

- 58 Peabody B. L. Rifled Muskets, cal. .45.
- 58 " " " Musket Bayonets.
- 6 Screw Drivers.
- 5 Tumbler Punches.
- 3 Spring Vises.
- 59 Cartridge Boxes.
- 58 Bayonet Scabbards.
- 61 Waist Belts.
- 59 Waist Belt Plates.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers, linen.
- 2 Drum Sticks, pairs.

- 51 Uniform Coats.
- 51 " Trousers.
- 60 Blouses.
- 61 Fatigue Caps.
- 62 Helmets.
- 63 Knapsacks.
- 63 Overcoats.
- 1 Overcoat Case.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First Sergeant " "
- 8 Sergeant " "
- 16 Corporal " "
- 3 Arm Chests.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Hunter's Hatchet.
- 1 A Tent.
- 1 A Tent Pole, set.
- 1 Bugle, Cord, and Tassel.

Infantry Company B, Fifth Battalion, Hartford, Captain

LLOYD G. SEYMOUR.

- 62 Peabody B. L. Rifled Muskets, cal. .45.
- 62 " " " Musket Bayonets.
- 6 Screw Drivers.
- 2 Tumbler Punches.
- 2 Spring Vises.
- 60 Cartridge Boxes.
- 62 Bayonet Scabbards.
- 62 Waist Belts.
- 62 Waist Belt Plates.
- 64 Knapsacks.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers, linen.
- 2 Drum Sticks, pairs.
- 62 Uniform Coats.
- 62 " Trousers.

- 64 Blouses.
- 61 Fatigue Caps.
- 62 Helmets.
- 64 Overcoats.
- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 3 Arm Chests.
- 1 Case Equipment Packing.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 1 Signal Kit, Company.
- 1 Bugle, Cord, and Tassel.
- 1 Colt's Revolver.
- 1 Holster.
- 1 Hunter's Hatchet.
- 2 Signal Service Devices, sets.
- 1 Trumpeter Devices, set.

Infantry Company C, Fifth Battalion, Bridgeport, Captain

CHAS. H. WALKER.

- 60 Peabody B. L. Rifled Muskets, cal. .45.
- 60 " " " Musket Bayonets.
- 59 Cartridge Boxes.
- 59 Bayonet Scabbards.
- 59 Waist Belts.
- 59 Waist Belt Plates.
- 2 Drums.
- 2 Drum Slings.
- 2 Drum Covers, linen.
- 3 Drum Sticks, pairs.
- 60 Uniform Coats.
- 61 " Trousers, pairs,
- 60 Blouses.
- 59 Fatigue Caps.
- 60 Helmets.
- 61 Knapsacks.
- 61 Overcoats.

- 2 Overcoat Cases.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 2 First " " "
- 8 Sergeant " "
- 16 Corporal " "
- 3 Arm Chests.
- 3 Cases Equipment Packing.
- 500 Rounds Ball Cartridges, cal. .45, sealed.
- 4 Signal Service Devices, sets.
- 1 Signal Kit, Company.
- 1 Holster.
- 1 Colt's Revolver.
- 1 Bugle, Cord, and Tassel.
- 1 Hunter's Hatchet.

BATTERY A, LIGHT ARTILLERY.

Capt. Arthur S. Fowler, Guilford.

- 1 Artillery Sabre, and Scabbard.
- 4 Artillery Sabre Belts and Plates.
- 2½ Spurs, pairs.
- 4 Artillery Coats.
- 4 " Trousers, pairs.
- 4 " Helmets.
- 4 " Helmet Plumes.
- 4 " Blouses.
- 4 " Caps.
- 2 Quartermaster-Sergeant Chevrons, sets.
- 1 First " " "
- 1 Color " " "
- 2 Veterinary " " "
- 1 Artillery Guidon, Staff, and Cover.
- 2 Veterinary-Sergeant Devices, sets.
- 2 Color " " "

First Platoon Light Artillery, Guilford, Lieut. WILLIAM H. LEE.

- 4 Double Set Wheel Artillery Harness.
- 4 " Lead " "
- 37 Artillery Sabres and Scabbards.
- 32 " Sabre Belts and Plates,

- 5 McClellan Saddles and Bridles.
- 1 Bugle, Cord, and Tassel.
- 30 Artillery Coats.
- 79 " Trowsers.
- 34 " Blouses.
- 30 " Helmets.
- 30 " Plumes.
- 36 " Fatigue Caps.
- 38 Overcoats.
- 5 Sergeant Chevrons, sets.
- 8 Corporal " "
- 19 Artillery Blankets.
- 7 " Whips.
- 1 Overcoat Case.
- 4 Harness Cases.
- 16 Halters.
- 8 Pairs Spurs.
- 2 3-inch Guns, Carriages and Caissons.
- 16 Nose Bags.
- 2 Sponges and Buckets.
- 6 " and Rammers.
- 6 Watering Buckets.
- 4 Tar "
- 4 Lanyards.
- 4 Priming Wires.
- 4 Thumbstalls.
- 4 Handspikes.
- 4 Paulins.
- 2 Prolonges.
- 4 Sights.
- 2 Spare Poles.
- 4 Pole Pads.
- 2 Fuze Cutters.
- 4 " Wrenches.
- 2 Vent Covers.
- 2 Worms and Staves.
- 8 Pole Straps.
- 2 Packing Cases.
- 2 Fuze Gouges.

- 4 Gunner's Gimlets.
- 4 " Haversacks.
- 2 " Pincers.
- 2 Fuze Saws.
- 2 " Pouches.
- 2 Tompions, Wood.
- 2 Tow Hooks.
- 2 Vent Punches.
- 2 Pouches for Sights.
- 2 Trumpeter's Devices.

Second Platoon Light Artillery, Branford, Lieut. JAMES T. REYNOLDS.

- 4 Gunners' Haversacks.
- 5 Thumbstalls.
- 4 Lanyards.
- 4 Double Sets Wheel Artillery Harness.
- 4 " Lead " "
- 7 McClellan Saddles and Bridles.
- 16 Artillery Blankets.
- 3 Spurs, pairs.
- 39 Artillery Sabres and Scabbards.
- 38 " Sabre Belts.
- 38 " Sabre Belt Plates.
- 2 3-inch Guns, Carriages and Caissons.
- 4 Sponges and Covers.
- 2 Sponge Buckets.
- 4 Sponges and Rammers.
- 6 Watering Buckets.
- 4 Tar Buckets.
- 3 Priming Wires.
- 4 Handspikes.
- 4 Paulins.
- 2 Prolonges.
- 4 Sights.
- 2 Spare Poles.
- 4 Pole Pads.
- 1 Trumpeter's Chevron, set.
- 4 Fuze Wrenches.
- 4 Cases Equipment Packing.

- 1 Bugle, Cord, and Tassel.
- 38 Artillery Coats.
- 79 " Trousers, pairs.
- 38 " Blouses.
- 38 " Helmets.
- 39 " Fatigue Caps.
- 38 " Plumes.
- 39 Overcoats.
- 4 Sergeant Chevrons, sets.
- 8 Corporal " "
- 1 Overcoat Case.
- 4 Harness Cases.
- 15 Nose Bags.
- 16 Halters.
- 6 Whips.
- 2 Vent Covers.
- 4 Fuze Pouches and Belts.
- 2 Worms and Staves.
- 8 Pole Straps.
- 2 Fuze Gouges.
- 4 Gunners' Gimlets.
- 2 " Pincers.
- 2 Fuze Saws.
- 2 Tow Hooks.
- 2 Vent Punches.
- 1 Trumpeter's Devices, set.
- 2 Pendulum Pouches.

GOVERNOR'S GUARDS.

First Company Governor's Horse Guards, Hartford, Major

FRANK COWLES.

- 69 Artillery Sabres and Scabbards.
- 67 Colt's Revolvers, cal. .45.
- 3 Pistol Cases, packing.
- 79 Saddles.
- 67 Saddle Cloths.
- 7 Cases Equipment Packing.
- 70 Artillery Belts.

- 70 Waist Belt Plates.
- 82 Cavalry Overcoats, gray.
- 3 Overcoat Cases.

Second Company Governor's Horse Guards, New Haven,
Major H. H. STRONG.

- 75 Artillery Sabres and Scabbards.
- 1 Sabre Belt and Plate.
- 75 Saddles.
- 75 Bridles.
- 73 Collars.
- 73 Saddle Cloths.
- 1 Case Equipment Packing.
- 66 Yellow Waist Belts.
- 66 Waist Belt Plates.
- 75 Blue Blouses.

First Company Governor's Foot Guards, Hartford, Major
J. C. KINNEY.

- 112 Springfield B. L. Rifled Muskets, cal. .45.
- 112 " " " Musket Bayonets.
- 4 Drums.
- 1 Drum Sling.
- 3 Drum Sticks, pairs.
- 1 State Color, Cord, and Tassel.
- 112 Dark Blue Infantry Overcoats.
- 4 Overcoat Cases.

Second Company Governor's Foot Guards, New Haven, Captain
E. J. MORSE.

- 69 Peabody B. L. Rifled Muskets, cal. .45.
- 69 " " " Musket Bayonets.
- 69 Cartridge Boxes, old pattern.
- 69 Cartridge Box Belts.
- 69 Bayonet Scabbards, old pattern.
- 69 Bayonet Scabbard Belts.
- 69 Waist Belts, old pattern.
- 69 Waist Belt Plates.
- 69 Cross Belt Plates

- 69 Shaks and Pompons.
- 68 Coats, old pattern.
- 67 Trousers, pairs.
- 69 Caps.
- 67 Epaulettes, sets.
 - 1 Case Equipment Packing.
- 69 Dark Blue Infantry Overcoats.
- 69 Magenta Blankets.
 - 2 Overcoat Cases.
 - 1 Blanket Case.
- 2 Drums.

INDEPENDENT MILITARY ORGANIZATIONS.

Putnam Phalanx, Hartford, Major JOSEPH WARNER.

- 100 Cadet Muskets.
- 100 " Musket Bayonets.

Cambridge Guard, Hartford, Captain I. L. CAMBRIDGE.

- 40 Springfield M. L. Rifled Muskets, cal. .58.
- 40 " " " Musket Bayonets.
- 2 Arm Chests.

MILITARY SCHOOLS.

Collegiate and Commercial Institute, New Haven, Maj. G. H. LARNED.

- 2 6-pounder Smooth Bronze Guns, cal. 3.67, complete.
- 2 " Brass Tompions, Wilmot's Patent.
- 2 " Sponges and Rammers.
- 2 Worms and Staves.
- 4 Handspikes.
- 2 Sponge Buckets.
- 2 Tar Buckets.
- 4 Watering Buckets, Leather.
- 2 Prolonges.
- 4 Gunner's Haversacks.
- 2 " Gimlets.
- 4 Fuze Pouches.
- 2 Tow Hooks.
- 4 Thumbstalls.

- 2 Sponges.
- 2 Priming Wires.
- 2 Lanyards.
- 2 Paulins, small.
- 1 Case Equipment Packing.

WEST MIDDLE SCHOOL DISTRICT, HARTFORD.

- 75 Cadet Muskets.
- 74 " Musket Bayonets.
- 3 Arm Chests.

Major WM. H. STOWE, NEW HAVEN.

- 100 Cadet Muskets.
- 100 " Musket Bayonets.
- 100 Cavalry Cartridge Boxes.
- 100 " " Box Plates.
- 100 Bayonet Scabbards, old pattern.
- 100 Cap Pouches.
- 3 Arm Chests.

CITY OF NEW HAVEN.

- 1 6-pounder Rifled Bronze Gun, cal. 3.80, complete.
- 2 " Sponges and Rammer.
- 1 Worm and Stave.
- 4 Handspikes.
- 2 Prolonges.
- 1 Watering Bucket.
- 2 Priming Wires.
- 1 Paulin.
- 2 Sponges.

CAMP NO. 25, SONS OF VETERANS, ANSONIA.

- 26 Cadet Muskets.
- 26 " Musket Bayonets.
- 1 Arm Chest.

G. A. R. POSTS.

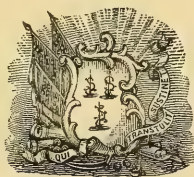
Post No. 18, Danbury.

- 11 Cadet Muskets.
- 11 " Musket Bayonets.
- 1 Packing Case.

Post No. 80, Litchfield.

- 8 Cadet Muskets.
- 8 " Musket Bayonets.
- 1 Arm Chest.
- 8 Bayonet Scabbards.
- 8 Waist Belts and Plates.
- 8 Cartridge Boxes.

TENTH ANNUAL REPORT
OF THE
STATE BOARD OF HEALTH
OF THE
STATE OF CONNECTICUT,
FOR THE
YEAR ENDING NOVEMBER 1, 1887.



Printed by Order of the Legislature.

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1898.

State of Connecticut.

OFFICE OF SECRETARY OF STATE BOARD OF HEALTH,
NEW HAVEN, CONN., DEC. 1, 1887.

To his Excellency, Phineas C. Lounsbury, Governor of Connecticut :

SIR: In compliance with the laws of the State I have the honor to present to you the Tenth Annual Report of the State Board of Health for the year ending Nov. 1, 1887, and also the Registration Report of the Bureau of Vital Statistics for the year ending Dec. 31, 1886.

Very respectfully,

C. A. LINDSLEY, M.D.,

*Secretary of State Board of Health and Superintendent of Registration
of Vital Statistics.*

MEMBERS OF THE BOARD.

	Term expires
HON. A. E. BURR, Hartford, - - - - -	1888
JOHN S. BUTLER, M.D., Hartford, - - - - -	1892
Prof. W. H. BREWER, New Haven, - - - - -	1890
GROVE H. WILSON, M.D., Meriden, - - - - -	1888
HON. ELISHA JOHNSON, Hartford, - - - - -	1892
RALPH S. GOODWIN, M.D., Thomaston, - - - - -	1890
Prof. C. A. LINDSLEY, M.D., New Haven.	

OFFICERS OF THE BOARD.

HON. A. E. BURR, President.

PROF. C. A. LINDSLEY, M.D., Secretary and Treasurer.

State Superintendent of Registration and Vital Statistics.

DR. C. A. LINDSLEY, as Secretary of the Board.

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GENERAL REPORT.

To his Excellency, PHINEAS C. LOUNSBURY, Governor :

THE State Board of Health of Connecticut, in compliance with the requirements of its Charter, begs leave to report to your Excellency in regard to "the Sanitary Condition and prospects of the State," and especially upon such matters as concern the interests of health and life among its citizens.

THE PERSONNEL OF THE BOARD.

No change has occurred in the membership of the Board since the last report; nor has there been any change in its officers.

Five meetings have been held during the year, all at Hartford, of which one was a special meeting, called for the purpose of considering some matters of proposed legislation which was to be submitted for the approval of the General Assembly.

Every meeting was fully attended by all the members of the Board, except in a single instance, when one member was detained at home by sickness.

The Board has not been called upon during the year to make any investigations in a body in any special localities. Committees of the Board and the Secretary have from time to time visited places upon notice of outbreaks of disease, and also inspected public institutions when so requested by the Governor or other authorities.

But special effort has been made during the past year to put into successful and harmonious operation the additional and amended laws, enacted by the last legislature, relating to the registration of Vital Statistics and especially the organization of local Boards of Health. Recognizing the well-known fact that laws do not enforce themselves, and in the effort to insure a prompt and satisfactory observance of these laws, direct correspondence was opened with Boards of Selectmen in every town, with Town Clerks, who are the Registrars, and indirectly through

the latter with Physicians and Sextons ; also with the local Boards of Health.

Numerous letters of inquiry from these various persons have been received and answered.

As an evidence of how little would have been done in obedience to the new laws, and how slowly they would have come to be observed generally through the State, if left to their spontaneous operation, it is only necessary to say that although copies of the law have been directly sent to every Town Clerk and to every Board of Selectmen in ample time for the necessary notices as required by law for the organization of local boards and the election of health officers, yet many towns failed to comply by organization of local boards and still more have wholly omitted to elect such officers or health committees.

Immediately after the time had expired at which this Board should have received notice of the election of Health Officers or Health Committees the following circular was sent to the first Selectman in each town which had failed to report:—

To the 1st Selectman of the Town of -----

DEAR SIR—By the enclosed “Act concerning Annual Meetings and Reports of town Boards of Health” you will see that a report of the names of your Health Officer and other Officers of your town Board of Health should have been reported to the Secretary of the State Board of Health within ten days after their election.

The Secretary has received no report from your town.

He begs respectfully to state that a meeting of the State Board of Health held in Hartford, Oct. 18th, it was voted:—That the Secretary be directed to notify the towns which neglected to organize on the 5th of October, and to report the names of their officers as the law requires, that they are not debarred from doing so, under the old law, which has not been repealed. That such towns can still organize and elect health officials, if they choose to do so. But, if on the 1st of December next, any towns have failed to notify the Secretary of the State Board of Health of such organization and election, then the State Board of Health will proceed to elect a reputable physician as health officer for each of such delinquent towns, as the statute provides.

Very respectfully,

C. A. LINDSLEY, M.D.,

Sec'y State Board of Health.

Office, New Haven, Conn.

This resulted in an immediate response from many towns, and in the action of several which had neglected to elect their Officers

of Health in the first week in October as directed by the new law. Still, notwithstanding such special effort to secure an observance of the laws, on the 1st of November, 1887—five months after the law was in force—fifty towns had not yet reported their Health Officers to the State Board. Another effort will be made with the delinquents and it is hoped before the report goes to press, it will be enabled to include every town in the State.

In a few instances where the towns have neglected to take action, the State Board has exercised its right and appointed health officers.

A marked feature in the rural communities of Connecticut has long been observed, which is, an indifference amounting to apathy, in regard to the importance of any public attention to sanitary matters. It is not uncommon, in reply to an inquiry, if the Selectmen of a town have organized as a Board of Health, to hear that "there is no occasion for it. The town is in good sanitary condition. We have no small pox and there is nothing for a board of health to do." And this too when other infectious diseases are prevailing, when the water supply is polluted by neighboring filth-vaults, when undrained lands and wet cellars abound, and when the disposal of sewage about a majority of the houses in the town is in a manner most objectionable.

By direct effort, the State Board of Health during the few years of its existence, through the instrumentality of circulars on infectious diseases, and by direct correspondence has more or less awakened the people in many towns from this unconcern and aroused some active interest in public hygiene.

Now that so many towns have an organized Board of Health with an elected Health Officer and Health Committee to which is delegated the powers of the Board; that a goodly number of the local Health Boards have made an annual report of the sanitary condition of their towns, and that there are positive evidences of a truer appreciation of the importance of public hygiene, are encouraging facts and give earnest promise of a more general introduction of practical hygiene in Connecticut.

ANNUAL REPORTS OF LOCAL BOARDS.

The following circular has been sent to all the local boards as fast as they are reported, excepting such as had already sent an Annual Report.

CONNECTICUT STATE BOARD OF HEALTH,

SECRETARY'S OFFICE,

15 Elm Street, New Haven, Conn.

October, 1887.

To the Board of Health of the Town of

SIRS: The Connecticut State Board of Health respectfully begs leave to call your attention to the following extracts from the statutes:

It shall be the duty of the Board of Health of each town, at the annual town meeting, to present a report of the doings of said Board, during the year ending on the first day of October, preceding such meeting. Chap. LIX, Sec. 2, Public Acts of Jan. Session, 1886.

And it is also hereby made the duty of * local health authorities to supply the * * * State Board of Health, * * with a copy of all their reports and other publications. See Section 5 of the Act establishing a State Board of Health.

Per order of the Board,

C. A. LINDSLEY, M.D.,

Secretary.

Many of the local board had been so recently established that it was not expected to receive from them much report of work accomplished. The older Boards, which have been established on a working basis for some years, have made reports and sent copies to the State Board. Many of the young boards have recognized the law and sent a brief statement, often including the sanitary regulations which they have made for the management of their respective towns.

Taking all things into consideration there is reason for satisfaction that the work is in as advanced condition as it is. The promise for the future is encouraging.

Many enquiries having been received from the officers of Local Boards, asking what their duties were. The State Board through its Secretary caused the following circular to be sent to them.

SUGGESTIONS TO LOCAL BOARDS OF HEALTH

BY THE STATE BOARD.

To numerous enquiries made to the Secretary, "What are our duties?" from many of the newly organized town Boards of Health, the following reply is offered :

In a general way the statutes of Connecticut define their duties in Chap. XI, title 16, giving them power and making it obligatory to "examine into all nuisances and sources of filth injurious to the public health, and cause to be removed all filth found within the town, which, in their judgment, shall endanger the health of the inhabitants," and to take such measures to prevent the spread of malignant infections and contagious diseases as in their opinion public safety may require.

See Sections 12, 13, 14, and following, page 18 of "Manual for the use of Local Boards of Health in Connecticut."

The chief objects which should engage the attention of a town board of health are only two.

1st. To secure the highest degree of cleanliness practicable.

2d. To prevent the spread of contagious and infectious diseases whenever they occur.

These are the fundamental principles which guide in the practice of public hygiene.

The natural condition of man is a state of health.

A natural death is by old age. Disease is an unnatural condition, and is always to be regarded as the result of his surroundings and exposures, or of heredity, in consequence of the unhealthy exposures of his parents or still earlier ancestors. It is therefore more or less of the nature of an accident which it might have been possible to avoid.

Regarding disease from that point of view, man has learned by observation and much sore experience, that there are causes external to himself which induce sickness and death. That the influences which constantly surround him have a power which affects his health in greater or less degree, according to their character. That many such influences are under his control, so that he can by judicious care avoid their baneful action.

These influences are of great variety. Some pertain wholly to the individual.

Sickness may be induced by personal evil habits ; intemperance, overwork, excessive indolence, and other excesses are powerful to disturb health. From the bad effects of such, the individual must escape by personal reformation.

Some pertain to the family, to the shop, to the factory, etc.—that is, to small assemblages or groups of persons so intimately associated by ties of common interest that the results of such association are often productive of conditions very injurious to their own health and to that of their immediate neighbors.

Over-crowded tenement houses, ill-ventilated work-shops, unwholesome occupations, and especially the sewage and other waste productions, which are the inevitable consequences of modern civilized life, are examples of this class.

And finally, some pertain to the community as a whole. They are such general influences as concern a considerable portion or the whole body of citizens. These latter can only be controlled by united public action. They chiefly relate to drainage of low lands, the construction of sewers, the supply of pure water for general use, etc., and such like special undertakings for the common good, and which are beyond the ability of individual effort.

A Town Board of Health can have, as such, but little responsibility for this last kind of sanitary work; their function in regard to it will be chiefly to lead and advise in such undertakings.

It is equally obvious that a board of health can have but slight official relations with the personal habits of individuals, however unsanitary they may be. The medical adviser, the moral teacher, or even the courts are more appropriate counsellors for such erring subjects, and quasi suicides.

It is therefore, with the remaining class of insanitary conditions that boards of health are most concerned in their official duties. With the results of the grouping together of individuals; in their domestic relations as in the family; in their occupations as in the factory; in their public assemblies as in the school, etc.

In a practical way the grand purpose of official supervision of this sort is to see that as a consequence of such gatherings and social contact of persons, there shall result the least amount practicable of contamination of the soil, of defilement of the water of wells and of springs, and of pollution of the air.

The cardinal formula for health was announced before the Christian era by Hippocrates, in these words: "Pure air, pure water, and a pure soil." The experiments of more than twenty centuries have only confirmed its truth.

In all countries of the civilized world for thirty years the whole general sanitary legislation has been chiefly directed to the *removal of filth*. The results have demonstrated its wisdom. There is no truth better established than this: *The removal of filth lowers the death rate.*

The biggest battles local boards of health have to fight are with the customs and practices of families, of landlords, and manufacturing concerns. The tendency of many is to the accumulation and storage near dwelling or occupied places, of masses of refuse, of various kinds, which undergo decomposition, and are so kept as to be a cause of pollution to the soil and the well and the air.

The privy vault, the cesspool, the hog-pen, the barn-yard, and the slop puddles in the country towns, and besides these in many towns now of denser population, the garbage heaps and the house plumbing, are great sources of evil.

There will be found in every town in Connecticut abundant examples of nuisances so situated with relation to wells and cellars, and even the

windows of dwellings houses, as to be a frequent source of danger to health ; and altogether too frequently so situated that public sentiment as well as sanitary science equally demand reform.

The most effective work of new boards of health is done in causing the removal of these nuisances.

A reasonable method of beginning sanitary work by a town board of health would be the publication of such sanitary regulations (see Section 3, on page 16 of "Manual"), as in the judgment of the board are required.

Health regulations should relate to :

The construction, location and management of privy vaults, cess-pools and drains.

The proper drainage of houses, cellars and yards.

The protection of wells and springs from contamination.

The systematic removal of garbage, and the disposal of such refuse as is liable to decay.

The sale of food stuffs with reference to wholesomeness.

The protection of the people from contagious diseases by quarantining malignant cases, by disinfection and by prohibiting public funerals of such deceased persons.

These are sufficient subjects for the first code of health regulations, and no town will fail to afford abundant occasions for enforcing them.

After this the most practical thing to do would be to employ a sanitary inspector, under pay when on duty, who should make a sanitary survey of the town at least annually. He should look about the premises of every residence and other building, and make note of garbage heaps, slop puddles, full privies, overflowing cesspools, wet cellars, obstructed drains, etc., etc., and report at stated times to the Board for their action.

Regular meetings of the Board should be held at least once a month. The inspector will have plenty of business for them. Finally every member of the Board should subscribe for some good sanitary periodical.

Per order State Board of Health,

C. A. LINDSLEY, M. D., *Secretary*.

The following sanitary regulations adopted by the town of Thomaston are a good example of a working sanitary code adapted to the needs of a small town.

TOWN OF THOMASTON—SANITARY REGULATIONS.

At a meeting of the Board of Health of the town of Thomaston, duly warned, and held on the 3rd day of December, 1887, the following regulations were adopted, viz:

SECTION 1. No person shall place, collect or suffer to remain upon the surface of land owned or occupied by him, or shall discharge or suffer to be discharged, from his premises upon the

land of another, or upon any public land, any filthy water, garbage or other filthy or noxious matter, whereby the owner or occupant of land so discharged upon, or of lands in the immediate vicinity thereof, shall be injured or damaged. Such person must remove the aforesaid nuisance within three days after receiving an order from the Health Committee so to do.

SEC. 2. No privy shall be kept or suffered to remain in such a condition as to be offensive to the sense of smell of passers-by or to those living in the immediate vicinity.

If any privy cannot be rendered reasonably inoffensive, except temporarily, while being cleaned, it shall be removed.

SEC. 3. No person shall erect, maintain, build or use, or suffer to be used, any cesspool or private drain from privy or sink upon any premises owned or occupied by him, which cesspool or drain has its outlet upon the public street.

SEC. 4. Every occupant of any house, building or tenement, shall keep the same and the yard and premises connected therewith, in a clean condition and free from filth and substances likely to infect the air of the neighborhood, and shall collect in one place in such yard or premises, all the house dirt or offal, and when the same shall become offensive as aforesaid, shall cause the same to be removed. And every landlord or agent of the landlord having general charge of such premises, shall cause the same to conform to this regulation within three days after receiving notice to that effect from the Health Committee.

SEC. 5. No person shall keep, or permit to be kept or maintained, any swine within one hundred feet of any dwelling house or any well of water, which is used for drinking purposes.

SEC. 6. No person shall sell, or offer to sell for family, hotel or saloon use, or for use in drinking water at any factory, house or store, any ice cut or taken from a pond or lake into which any sewer or private sink drain or cesspool empties, or from such part of any river or other stream, as is below and within two miles of the outlet of any public sewer.

SEC. 7. Every person who shall keep any horses, cattle, goats or swine, shall keep and maintain the building, stable, pen or other place in which such animal or animals shall be kept, in such a clean condition and dispose of the manure in such a manner, that the neighbors, or persons passing in the street shall not be incommoded by the smell therefrom.

SEC. 8. No person shall willfully or maliciously put any dead

animal or carcass into any pond, reservoir, stream or river within the limits of the town.

SEC. 9. It shall be and hereby is made the duty of every physician, surgeon or other person attending upon a case of small pox, cholera, epidemic dysentery, diphtheria, scarlet fever or other dangerous, contagious, infectious or pestilential disease, and every householder, attendant or agent in whose house a case of any such disease occurs, to report every such case to the health committee, or any member thereof, within twenty-four hours after having first having knowledge of the same, giving the location of the house, name of the street or lane upon which it is situated, and the name of the occupants with the name of the diseased person, if known, and the health committee may take such action as they may deem expedient to prevent the spread of such disease.

SEC. 10. It shall be the duty of the Health Committee to notify any person who is known to them to be violating any of the foregoing provisions. If any person shall refuse or neglect to remove any nuisance within three days after actual notice to him, or after a copy of this regulation has been printed in a newspaper published in the town of Thomaston, or posted for three days on each sign post in said town, he shall be fined not less than fifteen dollars, nor more than one hundred dollars.

SEC. 11. Every person who shall violate any legal order of this board, for which no other penalty is provided by law, shall be fined not exceeding five hundred dollars or imprisoned not exceeding six months, or both.

HEALTH OF THE STATE.

Information concerning the prevalent health of the State has been much more full and reliable since, than it was before, the first of June, when the new laws requiring reports of epidemics and of monthly mortality went into effect.

From all the knowledge which the Board has been able to obtain through the year, relating to sickness and death, it would appear that while in the aggregate, the amount of sickness and mortality has not varied in a marked degree from the years immediately preceding, there is evidence that the difference in this regard has been greater than usual at different periods of the year.

While some portions of last year were unusually healthy,

others as in July were exceptionally sickly. This statement is made now, from impressions from partial reports particularly for the first half of the year, and cannot be verified until all the abstracts of the registration in towns are received and collated.

During the high temperature which prevailed throughout the whole month of July and when the daily mean, was only twice below 70° F. there was a very marked increase of sickness throughout the whole state, but more particularly in the larger towns. This increase was almost wholly due to intestinal disorders. The most significant fact in this connection was that many of the Diarrhœas were of a dysenteric character, and far more frequent than have been observed in Connecticut for many years.

The highest mortality was among the children, as is usual from summer bowel troubles. But in Waterbury where Dysentery assumed the virulence of the epidemic form, it was more fatal among the adults.

A graphic account of its prevalence in that place will be found in another part of this report, by Dr. C. H. S. Frost, the Health Officer.

This form of disease was limited almost to the months of July, August and September, with a very marked reduction after the heated term in July.

Of the other infectious diseases, Diphtheria has prevailed through the state in many places, and in some more severely than for a long time before.

Such was the fact conspicuously in Bridgeport during August, September and October. The Health Officer, Mr. Fitzgibbons writes that "a large per cent. of the cases were among the poorer classes—families of from three to five children living in tenements of from three to four rooms, and under such conditions that isolation was practically impossible."

Such is the usual story wherever the disease occurs among considerable numbers. There may be occasional instances of its occurrence among sanitary surroundings which appear to be unexceptionable, and where the source or origin may not be detected. But these are exceptional cases, and under such conditions, if judiciously managed, its spread to others is easily arrested. It is when it gets a foot-hold in the abodes of poverty, in over-crowded tenements, where disregard of the plainest laws of hygiene have long been practiced, that it presents itself in its most formidable aspect.

In Waterbury also, after the abatement of the Dysentery, Diphtheria prevailed in some parts of the town quite extensively, but not with so large a percentage of fatal cases as it often claims.

In examining the reports received from the towns of the State it appears to have been present some time during the year in 56 different towns. And these were not located in any special section of the State, but were distributed through every county. But in many places perhaps in most of them the reporter speaks of it as of milder type than formerly.

Measles, although not often a fatal disease, is not altogether without danger to delicate subjects, by reason generally of lung complications which are so apt to attend and follow it.

Reports have been received of its presence in 72 different towns, scattered throughout the State, no whole county escaping. In sixteen of these towns it was reported as epidemic. Yet between the first of June (since which date we have had full reports of mortality) and the first of November there were but twenty-eight deaths, in the whole state.

Scarlet Fever is a far more dangerous disease. This, too, has prevailed to an unusual extent. Sixty-one towns in every section of the State have been visited, but fortunately with less fatal consequences in most of them, than has followed it in like visitations of former years. From June first to November first only forty-five died of scarlet fever in the State, although its presence is reported in sixty-one towns.

Whooping-cough and Mumps have also prevailed epidemically in several parts of the state but producing little mortality; that from whooping-cough being almost wholly among infants less than two years old, while a fatal case of mumps has not been reported to the State Board.

Typhoid Fever is reported as having occurred in seventy-one towns in the State, in sixteen of which the reporters say it was more prevalent than before, while in nineteen it was reported as less prevalent: of the remaining thirty-six no comparison is made.

Typhoid Fever is endemic, and the probabilities are that if full reports from all the towns in the State had been received, it would have appeared to have been present in more of them, and that as a whole not to be diminishing in its prevalence.

Special interest has been manifested among observers to determine the movement of that group of diseases which are designated as malarial.

In order to obtain reliable information respecting Connecticut, the circular which was sent to the sanitary correspondents of the Board contained this question.

Have malarial diseases prevailed more than in 1886 or less?

To this question 99 responses have been received from as many towns.

In 23 they are reported as more prevalent.

In 34 as less prevalent.

In 34 as about the same.

And in 8 towns as not present at all.

If the answers are considered with reference to the counties, they are as follows:

From Hartford County 20 responses were received, of which 3 towns reported an increase, 8 as unchanged, and 9 as diminishing.

From New Haven County there were only 14 responses, of which 3 reported an increase, 6 unchanged, 4 as less and 1 as not occurring.

From New London County only 9 replies: 3 increasing, 4 unchanged, and 2 diminishing.

Fairfield County made 17 responses: 5 more, 7 the same, and 5 less than in the year before.

Windham County reported two more, 2 the same, 3 less than 1886, and 1 as exempt from malaria.

Litchfield County reports an increase nowhere, stationary in 3 towns, and less in 4, while 6 towns of the 13 responding, have no malaria.

Middlesex reports 4 as suffering more, 4 less, and one as stationary.

Tolland County reports 3 more, 3 the same, and 3 less than last year.

Litchfield makes the best showing, not reporting its increase anywhere, and only three towns as stationary.

Hartford County stands next, giving 9 towns as less, against only 3 as more than in 1886.

While Fairfield County, where the disease first appeared in Connecticut, has made no perceptible progress in throwing it off during the year.

ASIATIC CHOLERA.

We have again occasion for self-congratulation and heartfelt thankfulness, that the anticipated visit of the dreaded cholera is

yet postponed. The continued absence of this disease gives us, however, no assuring confidence of real safety. The recent appearance at the port of New York of two ships, the *Alesia* and the *Britannia*, with cholera cases on board, sent a thrill of apprehension through the country. But the long notice of its prevalence in Europe and the supposed needful preparation for such an emergency by the health officials of that port, soon established confidence that every needful safeguard would be employed. It was not until an official investigation of the actual condition of quarantine at that port and also at the ports of Philadelphia and Baltimore revealed the truth, and by showing serious and apparently inexcusable neglect of proper precautions that the alarm was again excited.

It cannot be questioned, the country is still in danger of an invasion of this disease. Perhaps more so now than at any previous time since its appearance in Europe.

REGISTRATION OF VITAL STATISTICS.

When the Legislature of 1886 enacted the law which made all the town clerks chosen at the succeeding annual town meetings *ex officio* the registrars of births, marriages and deaths in their respective towns, some of the peculiar duties which were thus imposed upon town clerks could not have been thoughtfully considered, or it is believed that there would have been some hesitation in depriving such towns as wished it, of the right to elect registrars, fitted by education, to perform one of the most important duties of registration, and which town clerks, unless they have had such special training are competent to do only in the most imperfect and unsatisfactory manner.

Reference is here had to the proper registration of diseases as causes of death; and to the correct classification of them, in making up the annual abstracts of their records, for the State Board of Health.

These annual abstracts from each town in the State are the basis and only source of information for the tabulated statistics of mortality occurring in Connecticut.

Their value depends greatly upon their accuracy. Accuracy not only as to numbers who die in the whole State every year, and in each town in the State. But one of the most important

values of registration is a reliable record of the numbers from each cause of death.

In several states this work of tabulating the vital statistics is done, not from abstracts of local records, which must be not only very imperfect, especially when made by incompetent persons, but also necessarily limited to a very few particulars; but it is done from the original certificates, in all their fullness and completeness, thus enabling the statistician to study the facts which the certificates supply, in a variety of practically useful and instructive ways, and so increasing the utility of the facts, which the State is at so much expense to collect, vastly beyond the possibilities of the present method.

Unless the State Board, through its officers, can have access to and possession of the original certificates of death, from which to make up the annual registration of the State mortality, it must depend upon the registrars of the towns to return such causes of death to it, in the form of an abstract of the records arranged in classes and orders by some systematic method.

In order to aid the town clerks in their new duties as registrars the Board has caused to be prepared and published through its Secretary, a classification of diseases, which it is believed if the registrars will take the necessary trouble to examine, and use intelligently, will contribute somewhat to improve the character of the abstracts.

The following is the circular alluded to:

A CLASSIFIED LIST OF DISEASES AND AN ALPHABETICAL LIST
OF THE CAUSES OF DEATH.

ARRANGED TO REFER ONE TO THE OTHER BY NUMBERS, FOR THE
USE OF REGISTRARS OF VITAL STATISTICS IN CONNECTICUT.

With Explanatory Remarks by the Superintendent of Registration.

*To the Registrars of Births, Marriages and Deaths in the
Towns of Connecticut:*

These few pages have been prepared for the use of the Registrars of Vital Statistics in the towns of Connecticut. The purpose is to afford them some ready help, in making the annual abstract of the deaths in their respective towns, which the law

requires them to make and to send to the Secretary of the State Board of Health.

By a recent legislation enacted in 1886, the town clerk of every town in the state, except New Haven, is made ex-officio the Registrar of Births, Marriages and Deaths for the town of which he is the Clerk.

It is no reflection upon the intelligence of town clerks to say that they have not, and cannot have, as a consequence of being charged with new and unfamiliar duties, at once, the knowledge requisite to do well and correctly a portion of the work which the law imposes upon Registrars of Vital Statistics.

Town clerks have not (with very few exceptions), the advantages of a medical education. The varied and mixed systems of naming diseases, in use among Doctors, are to almost all of them unknown. The habit of Doctors is, when certifying the cause of death, to draw upon all languages, both dead and living, and least of all, upon their vernacular, for names to indicate the diseases of their dead patients. The nomenclature of diseases therefore is a heterogeneous collection of names and phrases, belonging to the Greek, Latin, German, French, English and other tongues. And such is the variety and multiplicity of terms used in designating diseases, that even the most learned of the profession have not unfrequently to consult a glossary.

It is therefore quite impossible that men who have had no special training for such extraordinary work, and to whom many of the names used are strange and unfamiliar sounds, should be able to make, without some help, a report of their record of deaths, in an enumeration of diseases *by classes*; and yet classification is necessary for some of the most valuable purposes of registration.

Says a high authority :

“Among the great ends of a uniform nomenclature must be reckoned that of fixing definitely, for all places, the things about which medical observation is exercised, and of forming a steady basis upon which medical experience may be safely built.

“Another main use of the statistical registration of diseases on a wide scale, is that it must tend to throw light upon the causes of disease, many of which causes, when duly recognized, may be capable of prevention, removal, or diminution.

“When a general and uniform nomenclature of diseases has once been carefully framed, when we are sure that medical observ-

ation is occupying itself everywhere with the self-same diseases, the value of statistical tables becomes very high, as representing the course of events in disease under various circumstances of time, place, season, climate, manners and customs, age, sex, race, and treatment.”—(*Report of Committee of Royal College of Physicians of London*).

It is to help town Registrars in this special part of their duty—the making out the annual “Abstract,” that this little circular has been prepared.

No attempt at a dictionary of the names of diseases was intended. That would require a volume, and in other ways be altogether impracticable.

The only purpose has been to indicate by numbers, in an alphabetically arranged list of the causes of death, the particular class or special place in the “Abstract,” in which each cause of death given in the death certificates shall be put.

Nor is it a full and complete list of all the names of diseases, and causes of death. But it is hoped there will be found herein, the greater part of the diseases, and synonyms by which they are known, which are in most frequent use, by the Doctors in Connecticut.

EXPLANATION.

The causes of death in the blank form for the Annual “Abstract” are classified. The classification is that proposed by the Royal College of Physicians a few years ago, and adopted by the English Government and by the United States Government in their published reports. It has also been formally approved and recommended for general use by the American Medical Association and by the American Public Health Association.

The authority therefore for its use cannot be better. The advantages of a uniform method of classification by all observers, is so self-evident that it needs no argument to prove it.

In the “Abstract” to be filled out by the Registrar, the diseases are arranged in “Classes,” and “Orders” and each disease or cause of death is numbered consecutively as so arranged from 1 to 180.

In this circular a repetition of that classification and its subdivisions is printed with the respective members just as it is in the “Abstract.”

In the list following which is arranged alphabetically, are included all the names which are in the Abstract, and also the synonyms of those names, with numbers, corresponding to those in the Abstract. Besides, there are also included many other names of diseases or varieties of disease which has no exact corresponding name in the printed forms in the Abstract, but are referred to there under the words "other diseases of the nervous system," "of the lungs, heart," etc., with numbers annexed which indicate where they are to be written in the Abstract.

For example—a certificate gives the cause of death "Enteric Fever." This is readily found in the alphabetical list, and is numbered 23. Referring to the Abstract it will be found that 23 is Typhoid Fever. Therefore Enteric Fever is to be counted with the Typhoid Fever cases.

Again—another certificate gives "Scirrhus of the Rectum;" finding Scirrhus in the list, it is numbered 50. Referring again to the Abstract, 50 indicates Cancer, and blank spaces are left beneath in which to write the kind of cancer and its location. Therefore it is to be reported in the Abstract in Class IV. as a "Constitutional disease," and written in one of the blank lines left for that purpose, under the word "Cancer," "Scirrhus of Rectum."

"Myocarditis" may be given as a cause of death. In the list it has the No. 96. In the Abstract 96 reads other diseases of Circulatory system; therefore Myocarditis is to be written on one of the blank lines under the No. 96.

"Tabes Dorsalis" in the list is numbered 82. In the Abstract 82 is Diseases of Spinal cord, therefore "Tabes dorsalis" is to be reported in that part of the Abstract.

With the above illustrations, it does not seem difficult to understand the uses of this circular, and it is hoped that registrars will consult it, and try to conform to it, in making up their yearly report of their registration.

With very little care, by the help of this circular, the registrars will at least be able to find the proper "CLASS" and "ORDER" in which each cause of death should be reported.

CLASSIFICATION OF DISEASES AND CAUSES OF DEATH.

- I. SPECIFIC FEBRILE OR ZYMOTIC DISEASES.
- II. PARASITIC.
- III. DIETETIC.
- IV. CONSTITUTIONAL.
- V. DEVELOPMENTAL.
- VI. LOCAL.
- VII. VIOLENCE.
- VIII. ILL-DEFINED AND NOT SPECIFIED CAUSES.

CLASS I.

- Order* 1. Miasmatic Diseases.
2. Diarrhoeal Diseases.
3. Malarial Diseases.
4. Zoogenous Diseases.
5. Venereal Diseases.
6. Septic Diseases.

CLASS II.

Parasitic Diseases.

CLASS III.

Dietetic Diseases.

CLASS IV.

Constitutional Diseases.

CLASS V.

Developmental Diseases.

CLASS VI.

- Order* 1. Diseases of Nervous System.
2. Diseases of Organs of Special Sense.
3. Diseases of Circulatory System.
4. Diseases of Respiratory System.
5. Diseases of Digestive System.
6. Diseases of Lymphatic System and Ductless Glands.
7. Diseases of Urinary System.
8. Diseases of Reproductive System:
 (a) Diseases of Organs of Generation.
 (b) Diseases of Parturition.
9. Diseases of Organs of Locomotion.
10. Diseases of Integumentary System.

CLASS VII.

- Order* 1. Accident or Negligence.
2. Homicide.
3. Suicide.
4. Execution.

CLASS VIII.

Ill-defined and not specified.

CLASSIFIED LIST OF DISEASES.

CLASS I.—ZYMOTIC DISEASES.

Order 1. Miasmatic.

- 1 Small Pox.
Varioloid.
- 2 Chicken Pox.
- 3 Measles.
- 4 Scarlet Fever.
- 5 Typhus Fever.
- 6 Relapsing Fever.
- 7 Influenza.
- 8 Yellow Fever.
- 9 Typhoid Fever.
- 10 Cerebro-Spinal Fever.
- 11 Continued Fever.
- 12 Whooping Cough.
- 13 Diphtheria.
- 14 Membranous Croup.
- 15 Mumps.
- 16 Other Miasmatic Diseases.

Order 2. Diarrhœal Diseases.

- 17 Cholera Infantum.
- 18 Infantile Diarrhœa.
- 19 Cholera Morbus.
- 20 Asiatic Cholera.
- 21 Dysentery.
- 22 Diarrhœa.

Order 3. Malarial Diseases.

- 23 Intermittent Fever.
- 24 Remittent Fever.
- 25 Pernicious or Congestive Fever.
- 26 Other Malarial Diseases.

Order 4. Zoogenous Diseases.

- 27 Hydrophobia.
- 28 Glanders.
- 29, Cow Pox and effects of Vaccination.
- 30 Other Zoogenous Diseases.

Order 5. Venereal Diseases.

- 31 Syphilis.
- 32 Gonorrhœa, Stricture of Urethra.
- 33 Other Venereal Diseases.

Order 6. Septic Diseases.

- 34 Phagedena.
- 35 Erysipelas.
- 36 Pyæmia.
Septicæmia.
- 37 Puerperal Fever.
“ Septicæmia.

CLASS II.—PARASITIC DISEASES.

- 38 Thrush.
- 39 Hydatids.
- 40 Worms.
- 41 Trichinæ.
- 42 Other Parasitic Diseases.

CLASS III.—DIETETIC DISEASES.

- 43 Starvation.
- 44 Scurvy.
- 45 Intemperance.
Chronic Alcoholism.
Delirium Tremens.
- 46 Other Dietetic Diseases.

CLASS IV.—CONSTITUTIONAL DISEASES.

- 47 Rheumatism.
- 48 Gout.
- 49 Rickets.
- 50 Cancer not located.
of Breast.
Carcinoma of Womb.
Scirrhus of Rectum.
- 51 Tabes Mesenterica.
- 52 Tubercular Meningitis, Acute Hydroceph.
- 53 Phthisis.
- 54 Other forms of Tuberculosis.
- 55 Scrofula.
Pott's Disease.
Hip Joint Disease.
- 56 Purpura.
- 57 Anæmia.
Chlorosis.
Leucocythæmia.

- 58 Diabetes.
- 59 Other Constitutional Diseases.

CLASS V.—DEVELOPMENTAL DISEASES.

- 60 Premature Birth.
- 61 Atelectasis.
- 62 Cyanosis.
- 63 Spina Bifida.
- 64 Imperforate Anus.
- 65 Cleft Palate, Hare Lip.
- 66 Other Congenital malformations.
- 67 Umbilical Hemorrhage.
- 68 Old Age.

CLASS VI.—LOCAL DISEASES.

Order 1. Diseases Nervous System.

- 69 Inflammation of Brain or its Membranes.
- 70 Apoplexy.
- 71 Softening of Brain.
- 72 Hydrocephalus, not acute.
- 73 Hemiplegia.
- 74 Paralysis Agitans.
- 75 Insanity.
- 76 Chorea.
- 77 Epilepsy.
- 78 Convulsions.
- 79 Trismus Nascentium.
- 80 Tetanus.
- 81 Paraplegia.
- 82 Diseases of Spinal Cord.
 - Myelitis.
 - Spinal Meningitis.
 - Locomotor Ataxia.
- 83 Other Diseases of Nervous System.

Order 2. Dis. of Org. of Special Sense.

- 84 Epistaxis.
- 85 Otitis.
- 86 Other Diseases of Eye, Ear, or Nose.

Order 3. Disease of Circulatory System.

- 87 Endocarditis.
- 88 Pericarditis.
- 89 Hypertrophy of Heart.
- 90 Angina Pectoris.
- 91 Syncope.
- 92 Aneurism.
 - of Aorta.

- 93 Senile Gangrene.
- 94 Embolism, Thrombosis.
- 95 Phlebitis.
- 96 Other Diseases of Circulatory System.
 - Fatty degeneration of Heart.
 - Disease of Heart.

Order 4. Diseases of Respiratory System.

- 97 Laryngitis.
- 98 Catarrhal Croup.
- 99 Other diseases of Larynx or Trachea.
- 100 Emphysema—Asthma.
- 101 Bronchitis.
- 102 Pneumonia.
- 103 Pleurisy.
- 104 Other diseases of Respiratory System.

Order 5. Diseases of Digestive System.

- 105 Stomatitis.
- 106 Dentition.
- 107 Quinsy.
- 108 Dyspepsia.
- 109 Hæmatemesis.
- 110 Disease of Stomach.
 - Ulcer of “
- 111 Enteritis.
- 112 Ulceration of Intestines.
- 113 Obstruction of “
- 114 Strangulation of “
- 115 Intussusception of “
- 116 Hernia.
- 117 Fistula.
- 118 Peritonitis (not puerperal).
- 119 Ascites.
- 120 Gallstones.
- 121 Cirrhosis of Liver.
- 122 Other diseases of Liver.
 - Hepatitis.
 - Jaundice.
- 123 Other diseases of Digestive System.

*Order 6. Diseases of Lymphatic System and
Ductless glands.*

- 124 Addison's Disease.
- 125 Disease of Spleen.
- 126 Bronchocele.
- 127 Diseases of Lymphatic System.

Order 7. Diseases of Urinary System.

- 123 Nephritis.
- 129 Bright's Disease.
- 130 Uræmia.
- 131 Suppression of Urine.
- 132 Calculus.
- 133 Hæmaturia.
- 134 Disease of Bladder.
Cystitis.
- 135 Prostatitis.
- 136 Other diseases of Urinary System.

*Order 8. Disease of Generative System.**A. Diseases of the Reproductive Organs*

- 137 Diseases of the Uterus.
Metritis.
- 138 Disease of Ovaries.
- 139 Disorders of Menstruation.
Menorrhagia.
- 140 Pelvic Abscess.
- 141 Perineal Abscess.
- 142 Diseases of Testis, Penis, Scrotum, etc.

B. Diseases of Parturition.

- 143 Abortion and Miscarriage.
- 144 Puerperal Mania.
- 145 " Convulsions.
- 146 " Hemorrhage.
Placenta Previa.
- 147 Phlegmasia Dolens.
- 148 Other Accidents of Childbirth.

Order 9. Diseases of Organs of Locomotion.

- 149 Caries.
Necrosis.
- 150 Arthritis.
Periostitis.
- 151 Other Diseases of Organs of Locomotion.

Order 10. Of Integumentary System.

- 152 Bedsores.
- 153 Other diseases of Integumentary System.

CLASS VII.—VIOLENCE.

Order 1. Accident and Negligence.

- 154 Fractures and Contusions.
of Skull.

- 155 Rail Road Injuries.
- 156 Gun-shot Wound.
- 157 Burns and Scalds.
- 158 Poisoned.

By Arsenic.

- 159 Drowning.
- 160 Suffocation.
- 161 Other Accidents.
Falling.

Order 2. Homicide.

- 162 Murder.
- 163 Manslaughter.

Order 3. Suicide.

- 164 Gun-shot Wounds.
- 165 Cut, Stab.
- 166 Poisoned.

By Opium.

- 167 Drowning.
- 168 Hanging.
- 169 Otherwise.

Order 4. Execution.

- 170 Hanging.

CLASS VIII.—UNCLASSIFIED.

- 171 Tumor.
- 172 Dropsy.
- 173 Debility, Atrophy, Inanition.
- 174 Sunstroke.
- 175 Exhaustion.
- 176 Hemorrhage.
- 177 Abscess.
- 178 Sudden Death.
- 179 Other ill-defined causes.
- 180 Cause not stated.

ALPHABETICAL LIST OF DISEASES AND OTHER CAUSES OF DEATH.

- Abdominal Dropsy, 119.
Abdominal Typhus, 9.
Abdominis Fissura, 66.
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Abscess of Lung, 104.
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Acute Renal Dropsy, 128.
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Anæmia, 57.
Anasarca, 179.
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Angina Membrana, 13.
Angina Pectoris, 90.
Anthrax, 153.
Aortic Insufficiency, 87.
Aortic Stenosis, 87.
Aphthæ, 105.
Apnœa, 179.
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Apoptia, 64.
Arteritis, 96.
Arthritis, 150.
Ascaris Lumbricoides, 40.
Ascaris Vermicularis, 40.
Ascites, 119.
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Asthma, Cardiac, 96.
Asthma, Thymicum, 83.
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Blue Jaundice, 62.
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Brain Paralysis, 73.
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- Eclampsia, 78.
- Eczema, 153.
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- Epidemic Dysentery, 21.
- Epidemic Parotitis, 15.
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- Exudative Pharyngitis, 13.
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SPECIAL MEMORANDA FOR THE REGISTRAR.

DEAR SIR :—

Much of what follows was sent in the form of a special circular to each Registrar last year, and resulted in so much improvement in the accuracy of the abstracts returned, over those of previous years, that I take the liberty of again reminding you of the special points which it contains. Please read it carefully, and before returning your abstract to the Secretary, observe if you have complied exactly with the suggestions contained in it.

Please bear in mind, that the "Abstract" which you give of the Registration of the Vital Statistics of your town is to be used, together with the "Abstracts" of the other towns, in making a consolidated report of the Vital Statistics of the whole State.

To be available for such purposes, it must be consistent with itself. For example, if in Table I. you state that the total number of births is 57 and in Table II. you give the total as 56, the discrepancy must be corrected before it can be used, or the error will reappear in many of the consolidated tables.

Again, if in Table VI. it is stated that there were 20 deaths in July, and at the bottom of page 22 of Table IX. it is stated under July that there were 25 deaths, the error will reappear again all through the consolidated tables, and it will be impossible to balance them. In short, your "Abstract" cannot be used for the purposes for which it is prepared if the facts stated in it do not agree, in every particular throughout its tables.

Again, if on page 14 it is stated that in the different months there were altogether, 9 deaths from Pneumonia, and on the opposite page there were of all ages only 7 deaths from Pneumonia, and at the same time it is stated that there were 5 males and 3 females, what use can be made of these conflicting figures, in a consolidated report? Yet just such careless errors have been *frequent* in the abstracts received.

I have found that it is often very vexatious to "Registrars" to have their "Abstracts" returned for the correction of mistakes, and it is scarcely less unpleasant to me to be obliged to do it. It

can easily be avoided if every Registrar will give it his careful attention.

The mistakes occur from not following exactly the printed directions on the blanks, and in not carefully observing if the totals which ought to agree always do so.

Thus the total of births in each of the first three tables should be the same.

The total number of brides in Table IV. should be the same as that of the grooms, and each should equal the number of marriages.

The total of deaths in Table VI. should agree exactly with Table VII. and Table IX.

The footings by months of Table VI. should agree exactly with the footings by months of Table IX. That is, see that you give the same number of deaths in each month in Table VI. that is given in Table IX. Again, see that the total numbers of males and females is given in the right hand columns of Table VI. correspond with the total number of males and females as given in the footings of the right hand columns of Table IX. on page 23.

A very common fault is the adding of the pages of Table IX. separately.

The footings of each column on page 6 should be carried to the top of page 8, and the footing of page 8 should include both pages, and so on to page 22. Then the footings of that last page of Table IX. would show the number of deaths in each month for the whole year, and should agree exactly with the like statement in Table VI.

In like manner the pages giving the ages and sexes of the decedents, viz: pages 7, 9, etc., to 23 should be added together and the number of males and females as given in Table IX. should agree with numbers by sex in Table VI.

Another common fault is the omission of some of the facts required. Very often Registrars carelessly leave the column for sexes blank, or fail to fill the columns for totals.

If all this is carefully done before sending the Abstract to this office it will save much trouble.

If there are errors the Abstract will be returned for correction.

Very respectfully,

C. A. LINDSLEY, M.D.,

Superintendent of Registration of Vital Statistics.

POLLUTION OF STREAMS INVESTIGATION.

In pursuance of the Act of the Legislature authorizing and empowering the State Board of Health to investigate the facts in relation to the pollution of natural streams to determine the sanitary and economic effects produced, have undertaken the work during the past summer and autumn, with reference to a few of the most polluted streams in the State. Prof. S. W. Williston, M.D., of Yale University, has been employed, and has been occupied with Piper's Brook, which is a tributary of Park River, running through Hartford, and is grossly polluted by receiving the sewage of New Britain. Also with the Naugatuck River, which is polluted by the refuse of many large manufactories and the sewage of portions of the numerous towns located upon its banks in the valley of the Naugatuck. The same line of enquiries have been pursued in regard to Still River, at Danbury, and the Hockanum River, together with some less complete investigations of sources of pollution at Meriden.

Dr. Williston has visited personally all the important factories upon these streams, and by direct solicitation secured more or less full reports of the amounts and kinds of refuse they discharge therein. He has also ascertained the refuse distinctively of the different kinds of factories (such as brass, woolen, iron, copper, pin, silk and hat).

He has also made specific enquiry to learn the quantity and quality of other sorts of sewage entering the streams. In short, his purpose and effort has been to obtain as full and correct a knowledge as possible of all sources of impurities to which the aforesaid streams are exposed.

He has been ably assisted in his work by Prof. H. E. Smith, of Yale University, in making chemical analyses of waters and by Dr. Wm. G. Daggett, of the Yale Medical Department, in making some bacteriological examinations.

The unusually wet season has retarded the work, and by swelling the volume of water in the streams has made the estimates of flowage somewhat larger than the usual summer weather amount.

The cost of the work so far as it has proceeded is as follows :

To S. W. Williston, services and expenses	\$851.66
To H. E. Smith, " "	155.00
To Wm. G. Daggett, " "	50.00
To Tuttle, Morehouse & Taylor, printing	8.00
	<hr/>
	\$1,064.66

Dr. Williston's Report, embodying also the results of the investigations of Drs. Smith and Daggett, will be found among the succeeding pages of this volume, and is without doubt one of the most valuable and instructive that has ever been undertaken in the sanitary interests of the State.

THE MEETINGS OF THE BOARD.

ABSTRACT OF THE PROCEEDINGS OF THE CONNECTICUT STATE BOARD OF HEALTH, AT ITS MEETINGS DURING THE YEAR ENDING DEC. 1, 1887.

HARTFORD, Dec. 28, 1886.

A special meeting after due notice was convened at the Capitol at Hartford, on Tuesday, Dec. 28th, 1886, at 2:30 o'clock P. M.

The meeting was called to order by the President, Hon. A. E. Burr. There were present Prof. Wm. H. Brewer, Dr. G. H. Wilson, Hon. E. Johnson, Dr. R. S. Goodwin, and Dr. C. A. Lindsley, Secretary.

A note from Dr. J. S. Butler was read by the President, regretting that a temporary illness prevented his attendance.

The minutes of the previous meeting were read and approved.

A communication from Dr. A. W. Nelson, of New London, was read by the Secretary, respecting the analyses of some milk, and also of some ejecta, with a view to discover the causes of illness in a family under his care, which had been taken suddenly ill with symptoms of an irritant poison.

The Secretary stated that he had replied to the communication and offering to have the analyses made at the expense of the State if sufficient facts were presented to make it in any way probable that the milk was the irritant, or that there was cause to suspect the presence of arsenic in the ejecta. It was, on motion,

Voted, That further action in the case be left to the discretion of the Secretary.

Dr. Wilson stated that similar effects had been observed in his experience from drinking milk, and had been reported to the Secretary by other correspondents; and that he believed that in certain states of health of a cow, due to functional derangements, the milk became changed so much as to produce active irritant effects upon the stomachs of some persons drinking it.

In this connection the following report of a similar occurrence in Bridgeport, by Dr. Worden, was presented:

BRIDGEPORT, October, 1886.

About the middle of the month occurred several cases of what seemed to be poisoning by some irritant. On inquiry it was found that similar symptoms had prevailed in no less than five families in the northern part of the city. Children were almost the only persons affected; and they were seized suddenly with vomiting, cramping, in one or two instances, purging, dilatation of pupils, and in every case by prostration. All recovered. The families affected lived near one another. One of them was attacked the second time, and the circumstances pointed so definitely to the milk, that the husband and father brought down some for examination. Under the microscope the globules were very frequent and fine, but there were also to be seen epithelium, large dark granulated cells such as are found in hoof and mouth disease, and conglomerate masses. As this milk was evidently from a diseased cow, inquiry was made with the following result: The families affected all purchased milk from the same store. No person was affected who did not drink milk. The sickness came on shortly after drinking milk, and in persons previously healthy. Inquiry of the dealer brought out the fact that he was furnished with milk from one source alone, that the milk seemed good, that he didn't think it was adulterated because it was warm when brought. The owners of the cows were immediately visited. The animals were pasturing in the lots. Through the field ran a very foul stream, contaminated by refuse from a rendering and slaughterhouse. Marks of hoofs were seen in the soft mud of the margin, but there is no reason to believe that the creatures drank there, as water drawn from a well near by was constantly kept on hand. The cows were fat, clean and healthy in appearance, but on closer inspection all the teats of one were found to be diseased, and two of the other. The cause of the sores was by the owner attributed to flies. He had tried to heal them with applications of cow manure. He was informed that complaint of the milk had been made, that it had sickened a number of people, and that he must sell no more of it. He promised to deliver no more; the dealer said he would not receive any more.

N. E. WORDIN, M.D.

A communication was read from Jas. B. Olcott, respecting a paper on "The Pollution of Streams," with reference to its publication in the Annual Report. It was on vote left to the Secretary to examine the paper and accept or reject it at his discretion.

The Secretary reported that at the National Conference of State and Provincial Boards of Health recently held in Toronto, it had been mutually and unanimously agreed to immediately report all

cases of small pox, cholera or yellow fever to adjoining States and Provinces, and asked authority to have printed a suitable number of blanks for such notification.

The Secretary submitted a form of blank, which was approved, and he was authorized by vote to have such quantity printed as he might deem requisite.

The Secretary stated to the Board that the chief object of this special meeting was to provide for presentation to the legislature at its coming session, such bills, in the interest of sanitation and registration of vital statistics, as had been recommended in the Annual Report to the Governor.

After a review of the subjects for new legislation so recommended, and discussion by the members, it was

Voted, That the Secretary and the Hon. E. Johnson be a committee to bring these matters to the attention of the Legislature at the proper time.

And it was also

Voted, That the committee be authorized to employ such skilled assistance as may be necessary for the proper preparation of the bills.

No further business offering, the meeting adjourned *sine die*.

Attest:

C. A. LINDSLEY, *Secretary*.

REGULAR QUARTERLY MEETING.

HARTFORD, CONN., Feb. 9, 1887.

The Quarterly meeting of the board was held this day at the Capitol.

The meeting was promptly called to order by the President, Hon. A. E. Burr, at 2:30 P. M. There were Dr. J. S. Butler, Prof. W. H. Brewer, Dr. G. H. Wilson, Hon. Elisha Johnson, Dr. R. S. Goodwin and Dr. C. A. Lindsley.

The minutes of the last meeting were read and approved.

A communication from the Health Department of the City of New York, in relation to the prevalence of small pox, and in response to an enquiry from the Secretary was read.

Also one from Dr. E. M. Hunt on the same topic; both communications stated the existence of the disease but did not question the ability of the Health officials to prevent its increase.

After the reading of the correspondence, the Board gave a hearing to gentlemen interested in the present discharge of New Britain sewage into Piper's brook.

The following gentlemen were present on the part of the town of Newington: Hon. J. S. Kirkham and Mr. Wells; and on the part of New Britain, Dr. Comings. There were also present ex-Gov. Hyde of Stafford, senator, Hon. M. P. Avery of Stafford, and Mr. Hurlburt of West Hartford.

The report of the Board on the pollution of Piper's brook was read, and the statements as to the amount of pollution and its ill effects, were reaffirmed by Messrs. Wells, Kirkham and Hurlburt, but denied by Dr. Comings.

The following letter was read from Mr. Beach.

VINE HILL, Jan. 31st, 1887.

PROF. C. A. LINDSLEY, M.D., New Haven:

Dear Sir—At the suggestion of Mr. Elisha Johnson, one of the members of your board of health, I write to call your attention to the effort now making to have the city of New Britain take its sewage out of the stream flowing through Newington and the south end of this town. We believe this sewage to have been the cause of sickness and death; in one case of the father of nine small children. It is a most flagrant nuisance which must continue to grow worse each year that it is suffered to remain as now. Would not your board employ Geo. E. Waring, Jr., of Newport, R. I., or some other sanitary engineer to come here and look over the ground and make a report? I speak of Col. Waring as I have known him for a long time as conversant with these matters; and that he has made it a constant study both here and in Europe for several years. I have now before me his pamphlet on the Disposal of Sewage and Protection of Streams, "extracted from the Transactions of the College of Physicians of Phil., Jan. 6, 1886," with his description of the plan in operation at Norristown. You may have seen this. If not, Col. W. would, no doubt, send it to you.

It is certain that this state of affairs in New Britain cannot be allowed to continue many years longer, and the sooner that city begins the reform the cheaper it can do the work, to say nothing about the saving from the continued damage to all the property on the stream. Now the water is rendered wholly unfit for the use of cattle, and even when so diluted by rains that the cows pastured on its borders will drink of it, liable to spread disease in the milk distributed throughout the whole neighborhood, including the city itself.

Massachusetts has set the example in requiring the city of Worcester to provide for its sewage in some other way than sending it to the towns below, and Connecticut should not be behind the times in dealing with New Britain or other towns so situated and stopping such pollution.

In a late number of the Society of Arts Journal, I notice the estimate of the saving in life in England through the improved sanitary arrangements to be above 100,000 annually. In the case of New Britain, I have very little doubt that irrigation or filtration works could be established at a very moderate expense if commenced without more delay.

Trusting that your board may take early action in this matter,

I remain, dear sir,

Yours truly,

CHAS. M. BEACH.

The suggestion to employ a sanitary engineer was discussed solely in respect to the authority of the Board to do it, and the general opinion not expressed by vote, seemed to be that the law did not authorize the expenditure of money to determine how New Britain sewage should be disposed of, but only the economic and sanitary effects of such disposal of sewage in running streams.

The following additional facts were stated by Mr. Hurlburt, as illustrative of the danger to the public health, from the present pollution of Piper's brook.

A farmer owning land on its banks and employing laborers, was himself taken sick, and died of typho-malarial fever. Another man in his employ also sickened and died of the same disease. Still another was taken sick, and went to his home in Canada, since which he has not been heard from.

Another man living near the brook was taken sick of the same fever, and went to the Hartford hospital where he was ill a long time and finally recovered.

Senator Kirkham informed the Board of a bill now before the Legislature, granting the town of Torrington the privilege of discharging its sewer into the Naugatuck.

On motion, it was voted that a committee be appointed to employ some proper person to investigate such polluted streams as the committee may indicate, and make a report to this Board.

On motion of Prof. Brewer, the President and Secretary were appointed such committee.

On motion of Dr. Wilson, it was voted that the Secretary be directed to recover all the property belonging to the State Board of Health, now in possession of Dr. A. J. Wolff.

There being no further business the meeting adjourned *sine die*.

Attest:

C. A. LINDSLEY, M.D.,

Secretary.

REGULAR QUARTERLY MEETING.

HARTFORD, CONN., April 27, 1887.

The quarterly meeting of the Connecticut State Board of Health was held this day at Hartford.

The meeting was called to order at 2:45 P. M. The President not having yet arrived, Hon. E. Johnson was chosen to preside.

There were present Prof. Wm. H. Brewer, Dr. G. H. Wilson, Dr. R. S. Goodwin and Dr. C. A. Lindsley. The minutes of the last meeting were read and approved.

The following communication from Dr. B. N. Comings, respecting an inquiry into the pollution of Piper brook by New Britain sewage, was read.

NEW BRITAIN, April 21st, 1887.

PROF. C. A. LINDSLEY, M.D.

Dear Doctor:—I am required by our city authority to present a report in regard to the "Pollution of Piper Brook," the subject of Senator Kirkham's bill presented to the Senate.

I propose to report an analysis of the water taken at two given points, every four hours for one day (24 hours). The sewage of the factories is emptied in only from 7 A. M. to 5 P. M. To get anything like a correct showing it should be taken at intervals during one day. I would endeavor to take it when the stream is as low as practicable at this season of the year. It has occurred to me that you may consider it in your line to do this for us, if I send you the specimens, taken by reliable parties. If so, I will secure the specimens and forward them as soon as practicable.

Yours truly,

B. N. COMINGS.

P. S.—The points I would select, 1st, one and a half miles from the output of the sewer where the sewage should be thoroughly mixed.

2d. Just this side of where the first Hartford sewer puts in, to show what amount of oxydation has occurred, if any.

B. N. C.

It being stated that Dr. Comings would soon be present, the matter was laid upon the table awaiting his arrival.

The President, Hon. A. E. Burr, having now arrived, assumed the chair. Soon after, Dr. J. S. Butler appeared, completing the full number of the Board.

The following communication from Gideon H. Welch was read relating to a proposed system of sewerage of the borough of Torrington, to discharge in the Naugatuck river.

TORRINGTON, CONN., April 15th, 1887.

DR. C. A. LINDSLEY, *Secretary State Board of Health.*

Dear Sir:—This village has recently become a borough, and we have fully organized under our charter and are contemplating a system of sewerage to be discharged into the Naugatuck river below the settled portion of the borough. Ought we to call upon the Board of Health of the State to make any investigations for us as to the healthfulness of the project? An early reply will greatly oblige,

Yours truly,

G. H. WELCH, *Clerk.*

The following is the reply of the Secretary :

NEW HAVEN, CONN., April 18th, 1887.

G. H. Welch, *Esq.:*

DEAR SIR—Your favor of the 15th inst., enquiring in respect to the Sanitary effect of discharging the sewage of your Borough into the Naugatuck river, came duly to hand.

The present population of Torrington is not large. I suppose the whole town may have 4,000. How many of them will be in the Borough and connected with the sewers, or what additional sources of pollution may result from manufacturing enterprises, I have at hand no means of knowing.

The health of Torrington will not be affected injuriously if the discharge is into the river below; that goes without saying.

But persons living upon the banks of the stream near the place of discharge, and for an indefinite distance beyond, might suffer. And their exposure would be somewhat in proportion to the amount and kind of pollution, and the quantity of water in the river and rapidity of its flow. In case the water of the Naugatuck is nowhere used, below Torrington, for domestic purposes, the chief direct danger to human health would come from pollution of the air due to effluvia from the foul water of the river. In all probability the amount of pollution for some years to come would not be enough to be appreciated, except perhaps at the immediate outlet of the sewer.

But there are other interests besides the single one of health. The riparian owners and residents below Torrington are concerned to keep the water of the river clear and pure. It will be a loss of food supply if the fishes are destroyed. Agricultural interests will suffer if pasture and meadow lands are injured, and the water is made unwholesome for domestic animals to drink. Hundreds of acres of farming property are injured in this way by the sewage of New Britain discharged into Piper's brook.

Again, I do not know what the fact is, but it may be that there are factories upon the river depending upon clear water in the river for the successful manufacture of their goods; if so, such parties would naturally and reasonably object to the contamination of the water with Torrington sewage.

All these considerations ought to be respected. The State Board of Health have no authority to forbid the discharge of your sewage into the Naugatuck, no matter who is injured.

If you have any question in your own minds as to whether it will be productive of injury to any interests, or not, and if you wish the Board to investigate the special conditions, and advise you, I think the Board would send a competent committee to examine.

The Board will hold a meeting next week, and any communication from you I will be happy to present.

I am, very respectfully,

C. A. LINDSLEY, *Secretary*.

No formal action was taken, but it was the sense of the Board, that if the advice of the Board was desired on the subject, the Secretary should visit the location with such other members of the Board as he should choose.

A communication from the Secretary of the National Conference of State Boards of Health was next read, but as there would be another quarterly meeting before the next conference, it was laid on the table.

Dr. Comings having come in, his communication was called from the table, and he was heard upon the subject. No vote was taken, but it was arranged with Dr. Comings that whereas the City of New Britain had undertaken an investigation, it would be better that the city should carry it on in its own way, without association with the State Board, but that the State Board at a later part of the year might undertake an independent examination.

SECRETARY'S REPORT.

There has been no important difference in the general health of the people of Connecticut since the last report. Scarlet fever has prevailed very generally throughout the State, and everywhere it have been characterized as unusually mild. In some places the cases have been quite numerous, as in New Haven and Saybrook, but with a very light mortality. An epidemic of small-pox broke out in the almshouse at Waterbury. The first case occurred February 11th, its origin has not been discovered. Five other cases subsequently came down with it, four of which were inmates of the almshouse and the other one had been an inmate the first three or four days of February. Three died and three recovered. The active precautions taken by Dr. Frost, the health officer, prevented the further spread of the disease.

About the first of April a young lady came to New Haven from Holyoke, Mass., to visit friends. There was at the time some cases of small-pox in Holyoke, which had been started in one of the paper mills in the vicinity. But this young lady did not know that she had anywhere been exposed to it. Soon after reaching New Haven she was taken ill, and after a few days a slight eruption appeared, which was mistaken for chicken pox. No precautions were observed to prevent contagion, but on the other hand, a little child two years old in the family she was visiting, never vaccinated, was permitted to sleep with her. On the 17th of April this child was taken violently ill. High fever, delirium and convulsions. The physician in attendance suspected cerebral meningitis until the eruption appeared which was diagnostic. The case was confluent and died in the secondary fever on the eighth day of the eruption.

The Secretary alluded to the numerous letters of inquiry he had received and answered on various sanitary topics relating to local boards of health, drainage of special localities, sanitary legislation, infectious diseases, etc., etc.

The annual reports for 1886 had been printed and for the most part distributed to the members of the medical profession, to the officers of the local boards of health, to the registrars of vital statistics, to other state boards of health, to public libraries, and public institutions, to members of other professions, and to many individuals who had solicited it.

The Secretary reported the results of a chemical examination of the water supply to the County Home for Neglected Children in Stratford, Fairfield County, and the tests employed to detect the sources of pollution.

The Secretary reported the passage of the laws without change or amendment, relating to registration and local boards of health proposed by the Board.

Voted, That the Secretary be authorized to prepare the forms required by the new laws for the reports relating to Registration, Health and Mortality.

The committee appointed at the last meeting to inaugurate an investigation of the economic and sanitary effects of the pollution of streams, reported progress and was continued.

The Secretary called attention to the fact that much of the ice retailed to consumers for household uses during the summer months, was derived from questionable and suspicious sources,

and that there were well authenticated instances of infectious diseases being caused in that way.

He suggested that it would be a profitable field of enquiry, to study the bacteria found in ice, which had been gathered for sale, in different localities, with a view to determine their qualities, by comparing the various kinds and quantities of bacteria which were found in the samples examined.

Voted, That the Secretary be authorized to provide for making such an investigation.

The subject of investigating the pollution of streams was opened with reference to the appropriation made by the last Legislature, and the question being raised whether the money, not having been expended, would be available for the next year.

On motion it was voted that Mr. Johnson and the Secretary be a committee to enquire of the Comptroller if he would honor the draft of the Board, for the sum appropriated.

The committee immediately made the enquiry and reported that the Comptroller would do so, provided the committee on appropriations included the amount in their report on appropriations, and the same was approved by the Legislature.

The President and Secretary were thereupon appointed a committee to interview the Committee on Appropriations.

The Secretary spoke of the prevalent apathy among many local boards of health, in sanitary work, and suggested as a means of arousing an interest, that it would be a wise and profitable expenditure to send to the health officers of the rural towns, a periodical on the subject of public hygiene.

The publication of such a journal was entirely beyond the means afforded to this Board by the State, but still the object could be reached very economically by subscribing to some meritorious journal already published.

He stated that the "Annals of Hygiene," published under the auspices of the Pennsylvania State Board of Health, could be obtained for such a purpose, at rates much below the regular subscription prices, and was a very excellent and reliable monthly. After some discussion it was unanimously voted that the Secretary be authorized to subscribe for 100 copies, and that they should be issued regularly from the office of the Secretary of the Connecticut State Board of Health to Health Officers of local boards at his discretion.

The Secretary reported the recovery of the property of the

Board from Dr. Wolff, except a few books which he had promised to return soon.

No other business offering the meeting adjourned.

Attest:

C. A. LINDSLEY, M.D.,

Secretary.

REGULAR QUARTERLY MEETING.

HARTFORD, July 29, 1887.

The regular Quarterly meeting was held this day, at the Capitol building at Hartford.

The meeting was called to order by the President, Hon. A. E. Burr, promptly at 2.30 P. M. There were present Dr. J. S. Butler, Prof. W. H. Brewer, Dr. G. H. Wilson, Hon. E. Johnson, Dr. R. S. Goodwin and Dr. C. A. Lindsley.

The minutes of the last meeting were read and approved. Treasurer's report read and approved.

A communication was read from the Health Officers of Old Saybrook, enquiring respecting the analysis of the water supply at Fenwick Hall.

This occasioned a consideration of the question whether it was the duty of this Board to procure an analysis of water at the expense of the State, when the said water was only suspected of impurities, and in the absence of any unusual prevalence of disease, which might be ascribed to it.

The expressed opinion of the Board was that in such cases the investigation should be made by the local Board of Health.

The following gentlemen were appointed to go as delegates to the National Conference of State Boards of Health to be held in Washington, in September, the President, the Secretary and Dr. R. S. Goodwin. It was on motion voted that any delegate who might be prevented from attending, might appoint a substitute.

The annual election being in order, the following officers for ensuing year were chosen by ballot:

For President, Hon. A. E. Burr; for Treasurer, C. A. Lindsley; for Auditing Committee, A. E. Burr and W. H. Brewer.

The Secretary made the following report:

The health of the people of the State had been maintained for the three months preceding the 1st of July, at its usual standard.

There had been no severe or marked epidemic prevailing anywhere in the State. Both scarlet fever and measles were prevalent in many parts of the State, but generally in mild form. Only one case of small-pox had occurred, and this was in Norwich. Although reported as a confluent case, it recovered, and through the prompt and judicious vigilance of the local Health Board, its spread by contagion was prevented.

The Secretary also reported the increased work which the new law concerning monthly reports of mortality, burial permits, etc., had involved. That in order to secure prompt and general attention to its requirements, he had caused copies to be printed, and had sent them in the form of a circular to all the registrars in the State, and a sufficient number of copies for them to distribute to the physicians and sextons in their localities.

He had prepared a blank form, printed on postal cards for monthly mortality reports, with which he had supplied the registrars in every town. He had obtained from every town clerk in the State, an estimate of the population of his town for the past year.

He had issued another circular containing a glossary of the nomenclature of diseases, to aid the registrars in making their returns of deaths and causes of death, which he had reason to believe they had found useful.

He reported that he had begun with the beginning of the operation of the new law, the issue of a Monthly Bulletin of the sickness and mortality in the State, together with a statement of meteorological facts as observed at the Signal Station at New Haven.

He had also issued an edition of some extracts from the Report of the Health Officer of New Haven; by advice of the President and other members of the Board, 3000 copies had been printed and distributed where it was thought they would do the most good.

The Committee on Investigating Pollution of Streams reported progress, stating that Dr. S. W. Williston of New Haven had been employed at a compensation of \$10 per day while at work and his expenses paid, and that he was proceeding with the investigation on Piper's brook and the Naugatuck river.

A very brief report of some results already obtained by Prof. Williston was also presented.

The Secretary reported a visit made by Dr. Goodwin and himself to the State Prison by request of the President of the Board of Directors of the prison, to investigate an outbreak of dysentery among the prisoners.

No other business appearing the meeting adjourned *sine die*.

C. A. LINDSLEY, M.D.,

Secretary.

REGULAR QUARTERLY MEETING.

HARTFORD, CONN., Oct. 18th, 1887.

The regular quarterly meeting was held this day at the Capitol.

The President, Hon. A. E. Burr, in the chair. There were present: Dr. J. S. Butler, Prof. W. H. Brewer, Dr. G. H. Wilson, Hon. E. Johnson, Dr. R. S. Goodwin and Dr. C. A. Lindsley.

The minutes of the last meeting were read and approved.

The report of the Treasurer, for the quarter ending October 1st, was read, and the vouchers were submitted and audited and the whole approved. The following communications were read by the Secretary.

One from Dr. J. E. Griswold enquiring what power a local Board of Health had to abolish a cess-pool which was polluting a well.

Another from Dr. Bloomfield, health officer of West Brook, reporting an outbreak of Scarlet Fever, in that town—the first in many years.

Another from Dr. Frost, Health Officer of Waterbury, briefly reporting an epidemic of Dysentery occurring in July and August, and another reporting a somewhat extended prevalence of Diphtheria, now existing in a portion of Waterbury, which latter is here quoted:

WATERBURY, CONN., Oct. 18, 1887.

PROF. C. A. LINDSLEY, M.D.,

Dear Doctor—Your letter just received. The facts in the case are these: There have been forty-one cases of Diphtheria reported to this Board so far this month. This includes Town and City both. (I was appointed Town Health Officer Oct. 4th, with the full power of the Town Board to act, and am now enforcing the same rules in the Town as apply in City. Heretofore they have had public funerals, etc., outside city limits.) There have been five deaths so far this month. One outside City and four within. The disease has been very mild in type.

Death in every instance has been the result of the action of the poison on the system, the throat being kept free from membrane with little or no difficulty. There was one public funeral last month. From this, one or two cases resulted. There was at first a want of promptness on the part of physicians in reporting cases, but I have seen them all personally and have remedied that trouble. The visiting of infected houses by women, etc., mentioned in the newspaper clipping you sent me is true. I have lectured every family I have visited concerning this, and have detained the children of such visiting women from school. Have instructed the teachers to send children home in cases where they hear of such visiting, and have had it mentioned in the newspapers. The article in the "News" is exaggerated, and as a whole is after their usual style—sensational. We have a Circular of Information issued by our Board, a copy of which I will enclose to you. I thank you for sending circulars, as I can use them in connection with ours. Any further information will be cheerfully given.

Very respectfully,

C. W. S. FROST.

A communication from Mr. Fitz Gibbon, Health Officer of Bridgeport, reporting a similar outbreak of Diphtheria in that City.

BRIDGEPORT, CONN., Oct. 18, 1887.

C. A. LINDSLEY, M.D.,

Secretary State Board of Health :

Dear Sir :—Your letter at hand. In reference to the statement contained therein, I respectfully submit the following report. There were reported by physicians during the month of September, 33 cases of diphtheria and 8 deaths ; in the month of Oct. to date 24 cases and 6 deaths. A large per cent. of the cases were among the poorer classes ; families of from three to five children living in tenements of three and four rooms. I find in such cases it is impossible to isolate the patient. This demonstrates the necessity of a Hospital where such cases could be removed and thereby save the lives of many children. In the northern part of the city where some cases have occurred there are no sewers and poor drainage. Among this number was the Haggerty family, mentioned in the slip you sent me. The family consisted of five children cared for by the eldest girl, 14 years old. She was the first to succumb to the disease. She was overworked—and had no resisting power, the other two will probably recover. I do not consider the disease epidemic ; the cases are scattered, mostly in the western and northern parts of the city. I do not know of a single case thus far in the eastern part, where two years ago it raged with many fatal results. Precautions are taken in every case, disinfection, fumigation, and where death occurs, speedy and private burials. Please accept thanks for circulars on diphtheria, I shall make good use of them.

Very respectfully,

RICHARD FITZ GIBBON, *Health Officer.*

The Secretary presented several letters from different towns stating that they had failed to organize their local Boards of Health on the 6th of October, and expressing their willingness to have the State Board take action as the law directed.

On motion of Mr. Johnson it was voted: That the Secretary be directed to notify the delinquent towns, that neglect to act on that date did not debar them from subsequent action under the old law which had not been repealed, and that such towns can still organize and elect the health officials if they preferred to do so. But that if on the 1st of December next, any towns have failed to notify the Secretary of the State Board of Health of such organization and election, then the State Board will proceed to elect a reputable physician as health officer for each of such delinquent towns, as the statute provides.

President Burr, of the committee on the Pollution of Streams, briefly reported progress, and called upon Prof. S. W. Williston who was present and who was engaged in the work, to make a statement of what had been accomplished.

Dr. Williston in an oral report outlined the methods of the work he had done and still proposed to do, and gave some of the results already reached in regard to Piper's brook and the Naugatuck and Hockanum rivers.

The Secretary stated that he had a communication in regard to a report on the sanitary condition of one of the towns published in the last Annual Report of the Board, and desired that a committee be appointed to advise with him concerning the printing of this communication which was desired by the writer.

On motion Prof. Brewer was appointed to confer with the Secretary, and with power to publish or not at their discretion.

SECRETARY'S REPORT.

The general health of the State had not been as good during the quarter ending Oct. 1st, as the average. The mortality in July represented an annual death rate of 31. per 1000, which is very large among a population as thinly settled as Connecticut. In the large cities it is not often exceeded. The excessive fatality was chiefly due to intestinal troubles. Dysentery had prevailed more than for many previous years, and there had been much of milder diarrhœal disorders. Although there had been localities where these diseases were more prevalent than in

others, yet the general occurrence of them in almost every part of the state was noticeable.

In August the same disorders were still prevalent but with less fatality, and in September the deaths represented about the average annual death rate for many years.

The Secretary expressed the opinion that the registered deaths for the present year would give a higher death rate than heretofore, because the new law requiring a permit for every burial would ensure a much more accurate and full registration than had ever been obtained before in the State.

The Secretary reported an inspection of the General Hospital for the Insane at Middletown, which he had made at the request of the Governor. Also the results of an inspection of Camp Lounsbury which he had made at the invitation of the Surgeon General. The Delegates to the National Conference, made each a report of their attendance upon the conference at Washington. Prof. Brewer, the Secretary, and Dr. Goodwin were appointed delegates to attend the meeting of the American Public Health Association, which will meet in Memphis in November.

On motion of Prof. Brewer, and in consideration of the greater labor imposed upon the Secretary in consequence of the operation of the new law respecting the Registration of Deaths, it was

Voted, That two hundred dollars per annum in addition to the four hundred previously appropriated for that purpose, be allowed the Secretary to be used at his discretion in the employment of clerical assistance.

No further business offering, the meeting adjourned *sine die*.

C. A. LINDSLEY, *Secretary*.

As the State Board is not endowed with any mandatory powers, it is not to be expected that it should be able to report much sanitary work of an aggressive character. Our functions are chiefly of an advisory nature, and the frequent applications for instruction and advice from local boards through the past year, and from public institutions, have been given faithful consideration.

The organization of the local town boards throughout the State is more complete and in better working condition than ever before, and although many of them have done little more than organize, still they are getting practical ideas of the work they are authorized to do, and are ready at any time without unnecessary delay to act promptly in any circumstances under which, by reason

of the presence of infectious disease, prompt and judicious action should be required.

Taking into consideration the difficulties which always hinder the introduction of new practices among peoples that are habitually conservative and reluctant to believe that there are any better ways than their own ways, the Board feel that as much has been accomplished during the past year as could reasonably be expected. And they believe a foundation has been laid for the future growth of an interest in sanitary matters throughout the State that will soon make itself felt in showing an improved condition of the public health.

All of which is respectfully submitted,

A. E. BURR, *President*.
J. S. BUTLER,
WM. H. BREWER,
G. H. WILSON,
E. JOHNSON,
R. S. GOODWIN,
C. A. LINDSLEY, *Secretary*.

THE HEALTH OF TOWNS.

HEALTH OF TOWNS.

For the last three years, a concise, brief, direct statement, summarizing the extent and general character of the sickness, in all the towns from which reliable information could be obtained has been a prominent feature in the Annual Report of the State Board of Health.

These short reports of the health of towns afford a clinical history of them from year to year, and will grow in interest and value as time goes on.

In one particular, especially, will they be examined, and that is in reference to whatever influence may be exerted upon them through the organizations of more active and effective boards of health.

It will be the better test of their usefulness, that we have a record of the health of these towns under the old *regime*, and before the recent laws respecting health boards took effect.

Of course it is not to be expected that such an influence for good, if any, will be at once manifested. It is quite unreasonable to expect any abrupt and marked change in the health of an old town, under the most active efforts of a board of health, unless some severe epidemic be prevailing at the time.

The three years of clinical history of a town already on record, affords an approximate standard of the average health. The conditions if any exist which have tended to lower that standard, are often more or less of a permanent character, or dependent upon some unsanitary but fixed customs of the people which cannot be peremptorily changed.

It is therefore quite unreasonable to expect a sudden betterment in the general health of any such towns.

The improvement will necessarily be gradual and steady. The health of every community depends so much upon the purity of the soil, and the non-pollution of wells, it will be readily admitted

that wherever the general health is lowered from such causes, it will be question of time and some radical changes to determine how soon the accumulated filth of generations can be gotten rid of, and a new order of things established.

The health boards themselves are yet inexperienced in sanitary work; in many places, too, they will have to encounter prejudice and ignorance, and the battle of reform will be fought with varying success, in all the towns.

But there must be a beginning, and the towns which do the most sanitary work and do it more judiciously will show the results in an improved state of health among their peoples, as surely as the laws of nature are fixed and imperative.

Let us wait then ten years and keep the record, and let us keep also as we hope to do a like record of what the health boards are doing. If at the end of that time sanitary work does not show a better health record it will be the first exception to the rule in all past experience.

As heretofore we have been dependent upon our Sanitary Correspondents among the medical profession for the necessary information. As being the most conversant with the health of the people in their respective places, they are the only persons who have reliable and trustworthy knowledge of the facts.

The Board desires to renew its thanks to these gentlemen for their most valuable aid in preparing this part of the Report, and without which it would be wholly impossible.

The following circular, containing questions quite similar to those sent last year was addressed to one practising physician in each town, and sometimes to another residing and in practice in a village or borough within the town limits, but for the most part we have only one correspondent in a town. These have mostly responded to the questions, at more or less length. In some thinly settled towns there is no resident physician, and from them there may be no report; although physicians of adjoining towns whose practice extends into them sometimes report for them.

CONNECTICUT STATE BOARD OF HEALTH, }
NEW HAVEN, CONN., NOV. 1, 1887. }

Dear Doctor:—There is scarcely anything that would more reasonably be expected in an Annual Report of the State Board of Health, than some authoritative statement respecting the health of the citizens of the towns of the State.

The law which created the State Board of Health requires it to make annually to the Governor a report among other things, "of the Sanitary Condition of the State."

While the law makes this demand upon the State Board, it has provided no adequate means by which the Board can obtain the necessary information upon which such report should be made. The Board, therefore, is compelled as heretofore, to depend upon the generous good nature of the members of the medical profession and beg them, as the only persons competent to do so, to report to the Board the sanitary conditions of their own localities.

"The Health of Towns" is, it is thought, an important feature in the Annual Report. It is not only instructive each year for its present value, but as the years go on, and a continuous history is annually published of the various towns, it will become of increasing value and interest.

It is, therefore, much to be desired that some report, however brief, may be obtained from every town; and especially that all the towns which have thus begun their health reports will not fail to continue them.

In order to systematize more readily the information received from the correspondents in the different towns, and to insure some method in reporting it, I submit some questions, which are broad enough in their scope to include all that most correspondents would desire to communicate, and yet to admit of brief reply where a longer one does not seem necessary. Negative information is often as valuable as positive. The absence of disease is a matter as much deserving of record as its prevalence. Bear in mind that it is the "Sanitary Condition of the State" during the past year that we wish to learn about and put on record.

May I depend upon you for the desired information respecting your town for the year ending Nov. 1st?

If you cannot respond will you kindly refer me to some one who will?

Please answer on the enclosed sheets, although I beg you will not be limited to them if you have more to communicate.

Your answers will be published in the Annual Report, over your name.

As the time when the Annual Report must be presented to the Governor is fixed by law, and is nearly expired, I beg you will respond so that I may receive your answer by Nov. 15.

I am very truly yours,

C. A. LINDSLEY, M.D.,

Secretary State Board of Health.

QUESTIONS.

1. Was there any disease, or were there any diseases which seemed to be specially prevalent in your town during the year ending November 1st?
2. If so, will you do us the favor to state what they were?
3. Can you offer any reasons for this special prevalence, and are the causes, in your opinion, in any degree removable?

4. Has any disease of unusual character occurred?

The above are general questions, and some answer of greater or less brevity, can always be given for each town by the local physician. The questions following relate to certain specific diseases which, more or less, prevail at times in every community, and usually form the basis for an estimate of the general sanitary condition.

5. Has Typhoid Fever prevailed more than in former years, or less?

Please relate any instances in which the source of the disease was traced, with as full particulars as you can.

6. Have intestinal diseases prevailed during the year more than usual? If so, at what season? Among patients of what age? What form of disorder? Whether Dysentery or not?

7. To what extent has Scarlet Fever occurred? And what was the prevailing type of it?

8. To what extent has Measles occurred?

9. To what extent has Diphtheria occurred? Please mention any special characteristics.

10. Have malarial diseases prevailed more than in 1886, or less?

ABSTRACTS FROM THE REPORTS RECEIVED IN ANSWER TO THE ABOVE INQUIRIES.

These reports are arranged by counties, and the towns are in alphabetical order.

HARTFORD COUNTY.

AVON—R. W. E. ALCOTT, M.D.

Diseases specially prevalent—Measles and pneumonia in February, March and April.

Diseases of unusual character—None.

Typhoid Fever—During the fall months typhoid fever has prevailed to some extent. Several severe cases. One very malignant case in a boy five years old. Disease contracted in Waterbury from drinking impure water. No deaths.

Intestinal Diseases—No epidemics. The usual amount of diarrhoeal diseases in children during the summer months.

Scarlet Fever—Small extent of mild type; one severe case accompanied with diphtheria.

Measles—Large number of cases, 30 to 40, during the months of May, June and July.

Diphtheria—Slight.

Malaria—About the same as in '86, less than in previous years.

BERLIN—R. E. ENSIGN, M.D.

Diseases specially prevalent—None.

Typhoid Fever—None.

Intestinal Diseases—No more than usual, I think.

Scarlet Fever—None.

Measles—Very limited and very mild.

Malarial compared with '86—Certainly as much.

BLOOMFIELD—HENRY GRAY, M.D.

Diseases specially prevalent—Measles and malarial fever.

Diseases of unusual character—None.

Typhoid Fever—Since malarial fever has prevailed, typhoid fever has almost disappeared. During the past year it has shown a little tendency to return by the appearance of two or three cases. A case of typhoid fever and one of diphtheria occurred nearly the same time in one family, and was apparently caused by the sink drain, which was full and so constructed as to convey all the gases of putrefaction into the rooms occupied by the family.

Intestinal Diseases—Intestinal diseases prevailed at the usual time—late in summer—but were less prevalent than usual. Dysentery, cholera morbus, cholera infantum; a few cases of each.

Scarlet Fever—None.

Diphtheria—A few cases, not severe.

Malaria, compared with '86—About the same, no general prevalence.

BRISTOL—H. E. WAY, M.D.

Diseases specially prevalent—None.

Diseases of unusual character—None.

Typhoid Fever—About the same as last year, perhaps more, though all of mild type. Mildness has characterized all of the disorders amongst us. I learn that two persons have died of this fever.

Intestinal Diseases—Catarrhal disorders of the intestines of children, especially children badly fed. Dysentery rare amongst children or adults.

Scarlet Fever—Very limited, mild type.

Measles—Very limited, mild type.

Diphtheria—None, as far as I know.

Malaria—Compared with '86—not more, perhaps less.

CANTON—GEO. F. LEWIS, M.D.

Diseases specially prevalent—None.

Typhoid Fever—Since September of '86 more typhoid than for fifteen years previous ; cannot give number of cases, and recall only two fatal. Type usually mild and careful search fails to find source of disease.

Scarlet Fever—Limited extent, cases usually mild.

Measles—A few cases, not epidemic.

Diphtheria—An occasional case.

EAST WINDSOR—H. O. ALLEN, M.D.

Diseases specially prevalent—Diphtheria, malaria, mumps and jaundice. The cause of the diphtheria is unknown. The hygienic conditions in town are generally good.

Diseases of unusual character—During the last two months of the year an epidemic of jaundice occurred. No fatal cases.

Typhoid Fever—As compared with former years—less.

Intestinal Diseases—Have prevailed only slightly. Very few cases of dysentery.

Scarlet Fever—None, to my knowledge.

Measles—None.

Malarial Diseases—Compared with '86—more.

EAST WINDSOR HILL—S. A. ROCKWELL, M.D.

Diseases specially prevalent—Perhaps erythematic affections—a few mild cases of an erysipelatous character unaccompanied by much febrile disturbance.

Typhoid Fever—Has prevailed to a greater extent than for many or quite a number of years past, differing widely from typho-malarial fever of a number of years.

Intestinal Diseases—So far as my observation extends, a few cases of dysentery, mild in form, a few of diarrhœa, and fewer cases of diarrhœa and cholera infantum than for many years past. There were fewer cases of any form of bowel diseases than for many summers past.

Scarlet Fever—I have seen no cases of scarlet fever during the past year. I think there were some in the eastern part of the town.

Measles—Has prevailed to a great extent in the south part of the town, but no fatal cases have occurred so far as I have heard from or within the sphere of my observation.

Diphtheria—Has occurred in different parts of the town, a sudden appearance in a school district when most of the children were attacked with it. The duration was very brief and rarely, if at all, fatal. The subjects seem confined to the house only for a short time, some of them.

Malarial Diseases—As compared with '86—malarial diseases have prevailed so far as my observation extends, to a much less extent than any year since the invasion; and old-fashioned typhoid fever (with "*M*" left out) is certainly to be the order of the day for some time to come, perhaps for many years.

ENFIELD—R. STRICKLAND, M.D.

Diseases specially prevalent—None.

Typhoid Fever—We have had very little typhoid fever the last year—less than usual.

Intestinal Diseases—We have had less intestinal diseases than usual. A few cases of dysentery, diarrhœa, cholera infantum and cholera morbus about as in previous years, but generally in a mild form.

Scarlet Fever—There have been but few cases of scarlet fever in town during the past year, and generally of a mild type.

Measles—There were quite a number of cases of measles during the winter and spring.

Diphtheria—But very few cases, mild type.

Malarial Diseases—Compared with '86, there have been in this town more malarial diseases than for two years previous.

FARMINGTON—UNIONVILLE—W. W. HORTON, M.D.

No diseases specially prevalent, no measles or diphtheria; less typhoid fever and malarial diseases than in '86. A few sporadic cases of scarlet fever and during the month of July some adult dysentery.

GLASTONBURY—JULIUS E. GRISWOLD, M.D.

Diseases specially prevalent—None.

Typhoid Fever—Have not known of a case during the year.

Intestinal Diseases—Less than usual.

Scarlet Fever—Very few cases, of mild type.

Measles—Have known of but few cases.

Diphtheria—A few mild cases last winter.

Malarial Diseases—As compared with '86, about the same.

GLASTONBURY—H. M. RISING, M.D.

Diseases specially prevalent—Scarlet fever, some of severe type, many of mild form. Measles of medium form. Malaria still holds a prominent place.

If the room in which the patients are sick was divested of all extra furniture, especially the carpets, I think scarlet fever might be more easily controlled.

Typhoid Fever—Since 1873, when chills and fever became generally prevalent, there has been but little typhoid fever at this end of the town; before that, it was a very prominent disease.

Diphtheria—Very few cases.

Malarial Diseases—As compared with '86, more.

GRANBY—W. A. STRATTON, M.D.

Diseases specially prevalent—During the spring months, a mild form of diphtheritic sore throat prevailed; cause, atmospherical.

The general sanitary condition of our town is good. Farming the principal occupation. I have noticed that zymotic diseases are more severe when barn-yard and out-houses are in close proximity to dwelling-house, and have suggested often, "and generally with good effect," the filling up with sand the cesspool, that usually exists in barn-yards.

Typhoid Fever—As compared with former years, more, and of a more severe type, and usually complicated with malarial fever.

Intestinal Diseases—Dysentery during September and October, among children and young people. About fifteen cases in town.

Scarlet Fever—Three cases. Mild, brought from other towns.

Measles—In northern part of town, during July and August, quite common. None at present.

Malarial Diseases—As compared with '86, less.

HARTFORD—JAMES CAMPBELL, M.D.

Diseases specially prevalent—There has been some scarlet fever, and now and then a fatal case of diphtheria. There have also been a few cases of meningitis. Rheumatism, malaria, measles and typhoid fever have prevailed to a moderate extent.

Typhoid Fever—About the same as in '86. The cases have been light and most of them seemed to be of the type known as

typho-malarial, although there have been several cases of pure typhoid.

Intestinal Diseases were not as prevalent nor as severe as one would expect to meet when the season was so very warm. Cholera infantum and entero-colitis in children, diarrhœa and dysentery in adults; of the latter disease, a few cases only.

Scarlet Fever—Generally, the cases have been mild; a few, however, were very severe, the patient dying in a few days.

Measles have not been prevalent except in the early spring when there were a great many cases, usually of rather mild character and running a favorable course.

Diphtheria—No special characteristics, unless, perhaps, the larynx has been invaded by the membrane rather more frequently than usual; at least this is true of the cases coming under my personal observation. There have been a number of cases where intubation of the larynx has been tried; the immediate result of introducing the tube was relief of the symptoms for a little while, but they soon returned and I believe each case terminated fatally.

Malarial Diseases—I should say that this disease had held about the same sway as in '86.

MANCHESTER—NO. MANCHESTER—R. M. GRISWOLD, M.D.

Diseases specially prevalent—None.

Diseases of unusual character—None, except during the last of August, a form of dysentery, which, in symptoms and rapidity of death in fatal cases, somewhat resembled sporadic cholera. About 10 or 12 cases. Four deaths.

Typhoid Fever—So far as I can ascertain, about the same as last two years. But few cases. No epidemic. Not more than five or six (if as many) deaths.

Intestinal Diseases—Hardly as much as for the past two years previous. Mostly diarrhœa and cholera infantum. But little dysentery.

Scarlet Fever—None at all to my knowledge.

Measles—Have known of none.

Diphtheria—A few cases of so-called diphtheria have been heard of, but cases were out on the street in from three to seven days.

Malarial Diseases—Fewer new cases than in 1885 or '86.

MANCHESTER—SOUTH MANCHESTER—J. N. PARKER, M.D.

Diseases specially prevalent—Scarlet fever.

Typhoid Fever—As compared with former years, very few cases of typhoid fever during the past year, the usual number of typho-malarial and remittent and intermittent fevers.

Intestinal Diseases—Less cholera infantum than usual, ten cases of dysentery, but all or nearly all yielded to treatment readily.

Scarlet Fever—There has been a great many cases of scarlet fever during the past year, but mostly of a mild type.

Measles—Measles have been of mild character with no complication and no deaths.

Diphtheria—Diphtheria has been quite prevalent during the past month with a few deaths.

Diphtheretic or membranous croup has killed two children within the past week.

Malarial Diseases—As compared with '86, less.

NEWINGTON—L. V. DURAND, M.D.

Diseases specially prevalent—Dysentery, cholera morbus, spinal meningitis, pneumonia, malaria.

Reasons for the prevalence—Atmospheric changes undoubtedly had something to do with it, but we cannot but feel that the miasm emanating from the stream of water known as Piper's brook has more to do in the list of causes than anything else.

Typhoid Fever—As compared with former years, about the same.

Intestinal Diseases—Intestinal diseases have prevailed to a considerable extent. During the early part of the summer, cholera morbus had five or six cases; one, a boy who had been drinking from Piper's brook, resembled Asiatic cholera. In early fall, dysentery seemed to take its place.

Scarlet Fever—We have had no cases of scarlet fever.

Measles—Five or six cases, mild form.

Diphtheria—Two cases of a mild form yielded readily to treatment.

Have Malarial Diseases prevailed more than in 1886—I think they have; we have had more or less during the whole year, winter and summer.

PLAINVILLE—J. N. BULL, M.D.

A few mild cases of scarlet fever and diphtheria, malarial diseases less prevalent: No measles or typhoid fever.

ROCKY HILL—RUFUS W. GRISWOLD, M.D.

Diseases specially prevalent—None.

Typhoid Fever—Have had none. Very little for several years. Less this year than before.

Intestinal Diseases—Next to nothing.

Scarlet Fever and Measles—None.

Diphtheria—In December of '86 and January of '87, there were 5 cases in one house, family of 6 children. First case was very mild. The other 4 were bad, and 3 died. There was a question in this case if the disease was not brought into the family by an adult member who had been visiting in another family where there was a case of diphtheria. The four bad cases followed the mild one, at intervals, and seemed to have come from that. There was no way of taking these children away from the place without exposing still others.

Have Malarial Diseases prevailed more than in 1886, or less?
—Rather less.

SIMSBURY—R. N. WHITE, M.D.

Diseases specially prevalent—None.

Diseases of unusual character—There has occurred a few cases of acute and sub-acute eczema coming during the extreme hot weather of June.

Typhoid Fever—As compared with former years, less.

Have Intestinal diseases been more prevalent than usual—They have not.

Scarlet Fever—No cases to my knowledge.

Measles—Perhaps half a dozen cases.

Diphtheria—No cases to my knowledge.

Malarial Diseases—As compared with '86, less. A well marked case of acute rheumatism in a strong, robust laboring man, occurred in August and lasted 4 or 5 weeks.

SOUTHINGTON—W. G. STEADMAN, M.D.

Diseases specially prevalent—Follicular tonsilitis and pneumonia.

Intestinal Diseases—Not more prevalent, I have seen two or three cases, and have heard of two or three more of dysentery imported from Waterbury.

Scarlet Fever—Very little, mild.

Measles—Only a few cases.

Diphtheria—Six or eight cases. No special characteristics.

Malarial Diseases—As compared with '86, less. Southington has been singularly free from serious forms of disease for the last year, in fact for several years.

SUFFIELD—J. K. MASON, M.D.

Diseases specially prevalent—With the exception of two epidemic diseases to be spoke of farther on, the health of the town has been good. Diseases of air-passages most prevalent, measles, whooping-cough, bronchitis and catarrh. Epidemic and atmospheric causes, not removable.

Typhoid Fever—As compared with former years, less. But there has been half a dozen or more cases of typho-malarial fever—since I still prefer this designation notwithstanding Bartholow's objections.

Intestinal Diseases—In July and August intestinal diseases were more than usually prevalent. Diarrhœa, dysentery, cholera morbus and cholera infantum, prevalent among all ages in the order named.

Scarlet Fever—None at all.

Measles—350 if not 400 cases, resulting in 4 or 5 deaths, but not in every case directly, e. g.: Two died of intercurrent pneumonia, one of diarrhœa and one of inflammation of bowels.

Diphtheria—Only one case and that a fatal one. The hygienic surroundings were very bad and no doubt occasioned the disease.

Malarial Diseases—About the same—complicating many diseases, with now and then a simple genuine case of malaria.

WETHERSFIELD—A. S. WARNER, M.D.

Diseases specially prevalent—Diarrhœal diseases.

Typhoid Fever—Very little (except cases in prison) hence about the same.

The only severe marked case I have seen (to my mind) was clearly caused by over-work, at school and at home.

Intestinal Diseases—Intestinal troubles in August, much disposed to assume a dysenteric type, sometimes with concurrent malarial symptoms.

So far as the town (not the prison) is concerned, the prolonged heated term. A noticeable circumstance was that children were largely exempt, also that the epidemic was mostly manifested in the lower parts of the town, suggesting damp atmosphere as a factor. It was neither severe or prolonged.

Scarlet Fever—In one family, and in a 2d family from exposure to the infection in the first. I think no other; “Scarlatina Anginosa,” so far as I saw and can judge.

Measles—Was introduced by an imported case into one of the schools, it had a pretty free run in that district (school) but didn’t prevail much outside.

Diphtheria—It was, I think, confined to two families, except the case of a child whose disease was contracted, without doubt, while subsequently for a time an inmate of one of the houses. The last case—the only one I saw—was, at first (and last) crouped, dying, I think, in 36 hours.

Malarial Diseases—As compared with ’86, I think on the whole, less.

WINDSOR—NEWTON S. BELL, M.D.

Diseases specially prevalent—None.

Typhoid Fever—As compared with former years, less.

Scarlet Fever—A few cases.

Measles—Have not prevailed to any extent.

Diphtheria—Only in a mild form.

Malarial Diseases—As compared with ’86, more.

WINDSOR LOCKS—S. R. BURNAP, M.D.

Diseases specially prevalent—None.

Typhoid Fever—As compared with former years—I have not met a single case in town during the past year.

Intestinal Diseases—I should say that fewer cases of intestinal diseases occurred in my practice last year than ordinary. No special form prevailed. I recall one death from cholera infantum, a few cases only of dysentery, diarrhoea or cholera morbus were met with and those of mild type.

Scarlet Fever—There were but few cases of scarlet fever, mostly mild in character.

Measles—There were a few cases of measles, four in my own family, of rather mild form, no fatality, or troublesome sequelæ.

Diphtheria—There were quite a number of cases of diphtheria in town during the first two or three months of the year, mostly mild, however, and rarely fatal.

The drinking water was doubly polluted in one instance where three children were sick with the disease in the same family. In several instances the cause could not be traced.

Malarial Diseases, as compared with '86—About the same.

NEW HAVEN COUNTY.

BRANFORD AND NO. BRANFORD—C. W. GAYLORD, M.D.

Diseases specially prevalent—Erysipelas (erysipelatous fever) and whooping-cough. Can offer no reasons for their special prevalence. Erysipelas appeared in all parts of the town under varying circumstances, as regards surroundings, hygiene, &c.

Diseases of unusual character—Rather unusual forms of erysipelas and a case of quinine eruption emulating closely scarlet fever.

Typhoid Fever—As compared with former years, about the same, only a few cases.

Intestinal Diseases—Prevailed to about the same extent as usual.

Scarlet Fever—A few cases only.

Measles—A few cases (hardly an epidemic) in eastern portion of town during the spring. Three cases in one family in western portion, imported from New York.

Diphtheria—Think we have had no diphtheria during the year.

Malarial Diseases—I think the prevalence and character of malarial diseases has been much the same as in '86.

CHESHIRE—M. N. CHAMBERLIN, M.D.

Diseases specially prevalent—Diseases of lungs and air passages in latter part of winter and spring. Diarrhœa and dysentery in latter part of summer.

Reasons offered for their prevalence—None for lung diseases; unusual heat for summer complaints.

Intestinal Diseases—Somewhat more, in the summer; young and middle-aged. Diarrhœa and some dysentery.

Scarlet Fever—No cases, I think.

Measles—A few cases in the spring.

Diphtheria—Two or three cases.

Malarial Diseases—Same as last year, which was less than the year preceding.

DERBY—CHAS. H. PINNEY, M.D.

Diseases specially prevalent—None.

Typhoid Fever—Not more than in '1886, but much more than in previous years. It has, however, been much more marked, the cases being more typical, more malignant and fatal.

Intestinal Diseases—None, excepting during the very hot weather in July. Many of the cases were dysenteric and typhoid. As soon as the cool wave reached us, in August, intestinal diseases almost entirely disappeared.

Scarlet Fever—Very little and very mild.

Measles—A good many cases in the spring, very few fatal cases.

Diphtheria—Very limited. Have personally seen but three or four. There were three or four cases that were very malignant and rapidly fatal in West Ansonia in the early part of summer.

Malarial Diseases—As compared with '86, less.

DERBY—ANSONIA—WM. C. WELCH, M.D.

Diseases specially prevalent—None.

Typhoid Fever—As compared with former years, rather more.

Intestinal Diseases—More than during previous years; July worst. Largely under 5 years. Were some cases of dysentery, but mainly they were simple intestinal catarrhs. Some cholera infantum.

Scarlet Fever—Less than last year. Most of cases were scarlatina simplex.

Measles—Several cases during spring months.

Diphtheria—Several cases during latter part of the year. As a rule the type is mild, but a few were quite severe, some proving fatal.

Malarial Diseases—As compared with '86, seem to be decreasing.

GUILFORD—G. P. REYNOLDS, M.D.

Diseases specially prevalent—None, I think.

Typhoid Fever—Less than in former years.

Prevalence and character of Intestinal Diseases—About the same as last year. Among children cholera infantum was quite prevalent, and diarrhœa and dysentery to some extent, in August and September, in adults.

Scarlet Fever—Very little, if any.

Measles—None to speak of.

Diphtheria—I have heard of no genuine case of diphtheria in town, although pharyngitis and laryngitis prevailed to some extent. Some physicians, I am sorry to say, call all throat affections diphtheria, and report wonderful cures.

Malarial Diseases—I should say that there had been rather more than in '86.

HAMDEN—MT. CARMEL—E. D. SWIFT, M.D.

Diseases specially prevalent—None of particular importance; in the spring and early summer catarrh of respiratory passages were unusually prevalent, though quite mild. No cause suggested but atmospheric influences.

Typhoid Fever—I have known of no case.

Prevalence and character of Intestinal Diseases—In July and August we had a few cases of infantile cholera, amenable, however, to treatment; senile diarrhœa, also easily controlled, and dysentery, which, though severe in some cases, also recovered.

Scarlet Fever—One case in October, mild.

Measles—None at all.

Diphtheria—Some two or three cases.

Malarial Diseases—As compared to '86, about the same.

MADISON—D. M. WEBB, M.D.

Diseases specially prevalent—None.

Typhoid Fever, as compared with former years—Less; no typhoid fever here.

Intestinal Diseases—Less than in previous years. Those which occurred were of mild type.

Scarlet Fever—None.

Measles—None.

Diphtheria—Only two cases, one mild and one severe.

Malarial Diseases—As compared with '86, less. Learn that some malarial troubles exist in the neighborhood of Pine Swamp, in western part of town. Hope something will be done there soon in the way of drainage.

MIDDLEBURY—MARCUS DEFORREST, M.D.

Diseases specially prevalent—Measles may be said to have prevailed during the early part of the year.

Typhoid Fever—As compared with former years, no cases have occurred; we seldom have it here.

Intestinal Diseases—A few not very serious cases of diarrhœa and dysentery have occurred.

Scarlet Fever—No cases.

Measles—Prevalent during early part of year.

Diphtheria—No cases.

Malarial Diseases—No strongly marked cases. The locality is not favorable.

Middlebury is a hilly town, drainage is good, and in other respects conditions are favorable for healthfulness of the inhabitants.

MILFORD—E. B. HEADY, M.D.

Diseases specially prevalent—A general prevalence of measles during the spring months, and cholera infantum and dysentery in the summer.

Typhoid Fever—As compared with former years, much less.

I attended two cases of severe typhoid malarial fever, occurring in the same family, which I traced directly to contamination of the well-water. The well was about six feet from the kitchen door. The sink-water, instead of being carried away by a drain, was allowed to empty directly upon the ground, very near the well. The result was, the mother of the family was taken severely sick, and very soon a child aged eight years, of not very strong constitution, suffered in the same manner. The use of the well-water was discontinued, and other members of the family, being of robust constitution, escaped sickness.

Prevalence and character of Intestinal Diseases—Very much more than usual, during July and August, principally among children under five years of age, having cholera infantum and diarrhœa. A number of cases of dysentery among adults.

Scarlet Fever—There has been none during the year.

Measles—Prevailed as an epidemic during March and April.

Diphtheria—No marked cases.

Malarial Diseases are on the decline and have prevailed much less than in '86.

NAUGATUCK—F. B. TUTTLE, M.D.

Diseases specially prevalent—Measles was pandemic with children under twelve and with many adults, followed with pneumonia in many cases.

Typhoid Fever—We have had less than in former years.

Intestinal Diseases—Not prevalent.

Scarlet Fever—Six or eight mild cases during the year.

Measles—Epidemic.

Diphtheria—We have had a good many cases during the year, mostly of mild character. I know of no unsanitary causes.

Malarial Diseases—About the same as in '86.

NEW HAVEN—GUSTAVUS ELIOT, M.D.

During the past year there has been no very unusual prevalence of any particular form of disease, nor has there been any apparent increase in the aggregate of sickness. The total mortality, however, has been considerably greater than in the preceding year.

Typhoid Fever has occurred to about the same extent as in recent years. It has caused twenty-two deaths, which is less than in the preceding year, and less than the average for the past five years. The mortality ascribed to typho-malarial and malarial fevers has not, of late, varied much from year to year.

Intestinal Diseases—The mortality from diarrhœal diseases in children under five years of age has been somewhat greater than usual. Particularly in July was the number of deaths notable, being seventy-five per cent. more than in the same month of the year before, and nearly fifty per cent. more than the average for July. In the two following months, on the other hand, the mortality was less than in '86, and also less than the average. The most common disorder of this class has been indigestion, accompanied by functional diarrhœa. A less common form has been entero-colitis. Among adults, intestinal troubles have not been particularly prevalent, although a few cases of dysentery, of unusual severity, have been observed.

Scarlet Fever, generally of a mild type, has occurred to a very moderate extent, having caused eleven deaths—nearly twice as many as in the preceding year, but less than the average.

Measles has prevailed to a limited extent, having caused ten deaths.

Whooping cough caused seventeen deaths—rather more than in the preceding year, but a little less than the average.

Diphtheria and membranous croup have been observed with moderate frequency. They caused thirty-seven deaths, which is scarcely more than half as many as in the preceding year, and considerably less than the average.

Puerperal Diseases caused nearly the same mortality as in the preceding year, but nearly twice as many as the average.

Small-pox caused one death. The victim was a child, who had never been vaccinated, and who contracted the disease from a patient who suffered an attack of varioloid soon after coming to New Haven from Massachusetts.

Consumption caused more deaths than in the preceding year and more than the average, while pneumonia and congestion of the lungs caused less than in the preceding year, but more than the average.

Cancer caused more deaths than in the preceding year and more than the average; Bright's disease and nephritis, as well as heart diseases, showed a slight increase over the preceding year and over the average; and diseases of the brain and nervous system caused many more deaths than in the preceding year, and considerably more than the average.

Sporadic cases of intermittent fever have been, as in past years, occasionally observed in nearly every part of the town. During the spring and summer this disease was perhaps rather more common than usual in the vicinity of the Beaver ponds.

OXFORD—LEWIS BARNES, M.D.

Diseases specially prevalent—In April, May and June, measles. In July, August and September, dysentery.

The epidemic of measles was brought from Naugatuck by a young lady who gave a german, or social dance, at her father's, and the measles opportunely as "favours." The hygienic inference is, "to be cautious of one's company."

Typhoid Fever—As compared with former years, less; two cases only, and imported therefore no history.

Prevalence and character of Intestinal Diseases—Dysentery prevailed during the months of July, August and September; eight cases fatal. All the cases were complicated with intermittent fever of the tertian variety. It was mostly confined to the narrow valley of Little river. The first case was from Waterbury; whether the germs arose from that case or had a habitat along the stream is uncertain.

Scarlet Fever—None.

Measles—There were nearly one hundred cases in the northern and eastern sections of the town. In one school district more than half the population were attacked from exposure at the dance. [It must have been *German measles*.—SEC'Y.]

Diphtheria—None.

Malarial Diseases—As compared with '86, less of that digestive and nervous derangement fashionably called "malaria," but more unqualified "shakes."

SEYMOUR—R. E. WARNER, M.D.

Diseases specially prevalent—Scarlet fever, measles, diphtheria and dysentery.

Typhoid Fever—Have not had a case in the town of Seymour. Had one case in an adjoining town, caused by removing the floor and cleaning out under a slaughter-house.

Prevalence and character of Intestinal Diseases—During the months of July, August and September, dysentery was very prevalent among children from two to twelve years of age; the disease was of a very severe character.

Scarlet Fever was quite prevalent, as usual, during March and April.

Measles—There were a few cases, of a mild type, in April.

Diphtheria—There were scattered cases of diphtheria from June to October. The cases were not numerous, but more severe than usual. One fatal case of cerebro-spinal meningitis in June. Two playmates were taken sick at the same time; one with meningitis, the other with diphtheria in a very severe form; the children living in the same neighborhood, but with apparently good sanitary surroundings. Am of the opinion that the cause was the same in each case, but was unable to trace it.

Malarial Diseases—As compared with 1886, should think about the same.

WALLINGFORD—W. S. RUSSELL, M.D.

Diseases specially prevalent—Pneumonia during the first three months of '87.

Probable cause—Atmospheric condition, accompanied by sudden changes of temperature.

Typhoid Fever—As compared with former years, less than usual.

Prevalence and character of Intestinal Diseases—I think they were more prevalent than usual during the hot weather of June and July. Had several severe cases of cholera morbus in adults; one fatal. Cholera infantum was prevalent at the same time. A few mild cases of dysentery.

Scarlet Fever—Very few cases.

Measles—Very few cases.

Diphtheria—A few mild cases early in the year.

Malarial Diseases—About as usual.

NEW LONDON COUNTY.

BOZRAH.—NATHAN JOHNSON, M.D.

Diseases specially prevalent—None—Without we except whooping-cough of which there were a great many cases during the early part of the year.

Typhoid Fever—Have seen only one case during the year.

Intestinal diseases, prevalence and characteristics—About same as usual in the months of July and August; quite a number of cases of non-inflammatory diarrhœa which seemed attributable to the hot and damp weather and mostly among children under 5 years and infants. No dysentery.

Scarlet Fever—Have seen one case of a mild type.

Measles—Have seen a few isolated cases.

Diphtheria—Have not seen a case during the year.

Malarial Diseases—As compared with '86, about the same.

COLCHESTER—SETH LYMAN CHASE, M.D.

Diseases specially prevalent—I think there has been more malaria than for several years. Anyway something that responded to quinine. A few cases of dysentery. Not knowing causes I cannot tell how to remove them. Had 3 cases, all young men

in same family—marked daily chill—Fever ended quite abruptly on 14th day. Remittent type—Quinine seemed to have good effect—2 cases that I shall report as typhoid seemed much like these—but the fever was more continuous and had a run of 4 weeks.

Diseases of unusual character—We have no epidemic of any kind. Had a case of cherry stone (?) impacted in appendix vermiform.

Typhoid Fever—As compared with former years—much less than there was a dozen years ago. Have had only 2 well marked cases. Both in same family. Fever continuous—about 4 weeks duration; rose colored spots, no diarrhœa but rather constipated; quinine made no favorable impression. House had been shut up very tight and was musty; had been water in cellar. Patients worked into it gradually; and severe headaches and some nosebleed at outset; no relapse. Both cases extremely slow.

Prevalence and character of Intestinal Diseases—Beginning about July 4th we had dysentery and through summer had about a dozen cases. All Irish. Age from 10 to 70. Stools, mucous and blood. Usual constipation; well-marked fever of 2 weeks duration; great tenesmus; tenderness.

Not the usual amount of summer diarrhœa.

Scarlet Fever—No scarlet fever in my jurisdiction.

Measles. No measles; had ours three years ago.

Diphtheria—Very little if any. No well marked cases; ordinary sore throats, sometimes called diphtheretic.

Malarial Diseases—Compared with '86, I think well marked cases have been more numerous.

GROTON—JOHN. L. DODGE, M.D.

No Diseases specially prevalent—No scarlet fever, measles or diphtheria. Intestinal diseases more prevalent than usual during the summer, diarrhœa among children from one to two years of age. Malarial diseases less prevalent than in '86. The deaths have been mostly from old age. Cancer and the diseases of infantile childhood.

LEBANON—W. P. BARBER, M.D.

The year ending Nov. 1st, 1887, closes a period of remarkable healthfulness in this town. No diseases have been specially

prevalent during the year. In a continuous practice here of sixteen years I think there has been less acute sickness than at any other time since I began. I know of no especial reason for this; I presume the atmospheric conditions have been especially favorable. The sanitary influences change very little. Since malaria has existed here there is some care exercised regarding cess-pools and privy vaults, but these sources of the foulest and most dangerous decomposition are too frequently ignored.

Typhoid Fever—There has not been a case of typhoid fever in this town during the last year. No intestinal diseases, except a very few cases of entero-colitis.

Scarlet Fever—A very few cases of a mild type.

Measles—Three cases.

Diphtheria—A few cases of sporadic diphtheria presenting the characteristic symptoms, which left no doubt of their nature.

Malarial Diseases—As compared with former years—have been decreasing during the last three years.

LISBON—W. T. BROWNE, M.D.

Diseases specially prevalent—Diphtheria and dysentery.

Probable causes—They all occurred in houses in which some members of the family were frequently sick with something. In one family two years ago the child had diphtheria, after which the house was thoroughly fumigated with burning sulphur and cleansed, and the sink drain completely renewed. There was no possibility of the well being contaminated from the house as it was situated about twenty-five rods from it in higher ground. In July, 1887, the same child had dysentery from which she recovered, but has never enjoyed good health; the last of October she was taken with diphtheria again, very severely. On inquiry, I found the child, the day before coming down, had been in the cellar with her father for an hour or more, and while there had amused herself by digging in a pile of dirt which had been swept up from the dry cellar bottom in the spring, but left there. There was considerable odor and some rotten potatoes in the pile.

I also found that although the present arrangements for kitchen drainage were good, for years back, apparently, the sink spout had emptied on the ground close to the house, and the water had soaked down into the cellar wall, rendering it very filthy

when closely inspected. Cause sufficient for continued ill health has been found at this house, the dirt pile has been removed, and the only radical cure for the other condition is to remove the family, or the wall of the cellar at that place. If the family moves to a "more healthy climate," they may chance to take a house where similar conditions exist and be no better off than before, as was the case with a family in Jewett City, who moved from Danielsonville during the winter of 1886-7, because they thought their house there was unhealthy, and in the spring their youngest child had diphtheria very severely. At this house in Jewett City a similar condition existed about the sink spout. The water had soaked into the ground and cellar wall so that it had caused all the mortar to fall out from between the stones.

Good drainage was provided by the landlord, but the old condition of the wall and ground was left with what disinfection could be applied from the inside, and the last of October the same child had diphtheria again. What must be done it seems to me is to entirely remove the contaminated earth and stones and substitute fresh, and this is what it is very difficult to persuade the owners of the property to do.

Intestinal diseases—More than usual. From July 14 to last of August, mostly dysentery in both old and young. One batch began about July 14 and another August 16.

Scarlet Fever—None.

Measles—Very few cases.

Diphtheria—Isolated cases.

Malarial diseases—Compared with '86—less; have made that diagnosis only once or twice during the year.

LISBON—JEWETT CITY—GEO. H. JENNINGS, M.D.

Diseases specially prevalent—Whooping-cough, measles and diarrhœal disorders.

Reasons offered—The first two diseases being highly contagious and children mingling freely the sick with the well. The diarrhœal affections were most prevalent during the unusual warm and damp period of the last of June and during July. Atmospheric conditions were powerful aids and poor drainage undoubtedly affected the supply of drinking water.

Typhoid Fever.—I do not know of a single case occurring in the town during the year.

Prevalence and character of Intestinal diseases—During the time mentioned under question 3. With no particular class of people as regards age. From bottle fed babies, to people well advanced in years. Usually in form of diarrhœa, sometimes dysenteric, with gastric complications at times.

Scarlet Fever—Few cases and usually of a mild type.

Measles—Epidemic during spring, occasional cases during summer, a few cases during the fall brought in from Voluntown.

Diphtheria—Less than usual.

Malaria—As compared with '86—I think this disease is on the increase, it more frequently was associated with some other disease.

NEW LONDON—A. W. NELSON, M.D.

Diseases specially prevalent—Diseases of old age, consumption and infantile diarrhœa.

Typhoid Fever—Very few cases.

Scarlet Fever—Hardly any.

Measles—Very few cases.

Diphtheria—Three deaths in one locality.

Malarial Diseases—As compared with '86, rather less. Some cases.

NORWICH—L. S. PADDOCK, M.D.

Typhoid Fever—As compared with former years, less. A case of typhoid fever has been rarely seen this year.

Intestinal Diseases—There were a few cases of diarrhœa among children during the hot weather; but as a whole, the season has been an unusually healthy one.

I cannot recall a year that has been so free from sickness. I should be inclined to think that all business was deserting me, unless the physicians generally tell one and the same story. There is no prevalence of anything. I have seen three cases of light scarlet fever within the past three months, and know of none at present. I don't know of a fever in town, although there are some without doubt.

Scarlet Fever—An occasional light case.

Measles—I do not recall any.

Diphtheria—Very rarely met; of light character generally.

Malarial Diseases—As compared with '86—more.

NORWICH—GREENVILLE—JULIAN LA PIERRE, M.D.

No diseases specially prevalent.

Typhoid Fever—Compared with former years, less than for some years.

Prevalence and character of Intestinal Diseases—A few cases of sporadic dysentery were noted in the early part of summer; this may be more notable from the fact that this locality was visited a year ago by a severe epidemic of dysentery, in many cases proving fatal.

Scarlet Fever—To about the usual extent, and mostly of a mild type.

Measles—Perhaps more than usual and in many cases, of a severe type, especially among adults.

Diphtheria—I have not seen as many cases as during the two preceding years.

Malarial Diseases—As compared with '86, less in my practice.

The frequent rains the past year have kept the river high and the streets well washed.

NORTH STONINGTON—E. H. KNOWLES, M.D.

Diseases specially prevalent—None.

Typhoid Fever—More than for a number of years; very few cases of typical typhoid, mostly typho-malaria, two cases traced to improper drainage; cesspool under bedroom window, with very bad smell.

Intestinal Diseases—About the same as in former years. August and September, few cases of dysentery. No deaths from these cases; the greater part among children; a few cases in adults.

Scarlet Fever—None.

Measles—I think a very few cases of measles; I have had not more than four or five.

Diphtheria—Not to any great extent, the most of the cases have been of a mild type. I do not think there has been any fatal cases in town.

Malarial Diseases—As compared with '86, I think more.

SALEM—CHAS. F. CONGDON, M.D.

Diseases specially prevalent—Whooping-cough was epidemic in the winter and spring. In January "winter cholera" was almost an epidemic. In the late summer diseases of the digestive tract were unusually prevalent.

I think the unusual amount of diarrhœal diseases in the summer was due to the excessive heat in July.

Typhoid Fever—As compared with former years, about the same.

Prevalence and character of Intestinal Diseases—More. January, July and August. All ages. More usually adults. Cholera morbus and kindred diseases. Only one case of dysentery.

Scarlet Fever—Two mild cases.

Measles—None.

Diphtheria—A few suspicious throats. Nothing that I could positively call diphtheria.

Malarial Diseases—As compared with '86, not much difference.

STONINGTON—FRANK COATES, M.D.

Diseases specially prevalent—Each season has brought the usual form of disease incident to it. No disease was specially prevalent. With the following exceptions the year was one of healthfulness.

An extensive epidemic of measles last spring, mostly of mild form. Since October 1, typho-malarial fever in an unusual quantity and in some instances of an alarming character. A few cases have terminated fatally.

After careful investigation I can assign no definite cause as the disease was not confined to one locality. After a season of abundant rain producing luxuriant vegetation, now decaying, the influence of the cold damp nights and warm days of autumn may have been sufficient to cause this outbreak of fever.

Typhoid Fever—Compared with former years, only in the form of typho-malarial.

Prevalence of Intestinal Diseases—Rather less than usual.

Scarlet Fever—Very slight in extent, mild in character.

Measles—Epidemic.

Diphtheria—None.

Malarial Diseases—Compared with '86, more.

VOLUNTOWN—RANSOM C. YOUNG, M.D.

Diseases specially prevalent—I think none.

Typhoid Fever—As compared with former years, less than in former years. I know of no case that has been traced to a satisfactory cause.

Scarlet Fever—But few cases of this disease.

Measles—Very prevalent; some three hundred cases in this town but in a mild form.

Diphtheria—Less than in former years.

Malarial Diseases—Malarial diseases have prevailed in this town more than in former years, perhaps twenty or thirty cases the last year.

FAIRFIELD COUNTY.

BETHEL—A. E. BARBER, M.D.

Diseases specially prevalent—None.

Typhoid Fever—As compared with former years, less. What few we have had have been, I think, complicated with a malarial or remittent fever.

Prevalence and character of Intestinal Diseases—Some cholera morbus, cholera infantum, and a few cases of dysentery. None were epidemic.

Scarlet Fever—No cases during the year I think.

Measles—None.

Diphtheria—There has been quite a number of quite mild cases.

Malarial Diseases—As compared with '86, of a very mild type.

BRIDGEPORT—N. E. WORDIN, M.D.

Diseases specially prevalent—Diphtheria and croup continue very prevalent but not quite so fatal as in the two years preceding. Diarrhœal diseases have also been during the summer unusually numerous. Total of deaths in Bridgeport have been less than in the two years before, notwithstanding the rapid increase of population. Typhoid fever has also prevailed with unusual severity. I can offer no reason for the special prevalence of these diseases just now. Diphtheria seems to recur at septe-

nary periods—why, I do not know. Have nothing more to add than what is contained on pages 289–306 of the last Annual Report.

Typhoid Fever—As compared with former years, more ; there have been fifteen deaths.

Prevalence and character of Intestinal Diseases—It seems to me less prevalent. In the months of November and December, '86, January, February and May, '87, not a single death occurred from diarrhœal diseases in children under five. During the entire twelve months there have been but fifteen deaths from the same diseases in adults. Dysentery has been a prevailing form of this class of diseases and as such has been rather more frequent at the western end of the city.

Scarlet Fever—Very little within the past four years ; one death this year, one last. Most cases are mild in form but occasionally malignant scarlatina causes death suddenly.

Measles—Very little since 1885 when they were very prevalent, very severe and very long continued. In that year there were twenty deaths ; this year but two.

Diphtheria—To a considerable extent, but in a mild form. Cases of ulcerative tonsilitis have had such large erosions with exudations that they have with difficulty been distinguished from the catarrhal formation characteristic of diphtheria. Without doubt, some have been reported as diphtheria, which were not so in reality.

Malarial Diseases—As compared with '86. Of typhoid malaria, so called, I think we have had more ; of malaria, as generally understood, about the same.

BROOKFIELD CENTER—A. L. WILLIAMS, M.D.

Diseases specially prevalent—None. The past has been the healthiest season in twenty years.

Prevalence and character of Intestinal Diseases—Less than usual. Several mild cases of dysentery in July. Four cases of severe diarrhœa in persons past 70 in same neighborhood almost simultaneously with apthous development from beginning. Two recovered, two died, aged respectively 79 and 91. Surrounding conditions sanitary.

Scarlet Fever—None.

Measles—Few mild cases.

Diphtheria—None.

Malarial Diseases—Compared with '86, less ; few cases, mild.

DARIEN—SAM'L SANDS, M.D.

No diseases specially important.

Typhoid Fever—None.

Prevalence and character of Intestinal Diseases—Rather more than usual. Cholera infantum in July and August. Diarrhœa and dysentery in August and September among older people.

Scarlet Fever—A few cases of scarlet fever, mild type.

Measles—A few cases.

Diphtheria—Five cases in one family. Two of which proved fatal.

Malarial Diseases—About the same as in '86.

FAIRFIELD—W. H. DONALDSON, M.D.

Diseases specially prevalent—Nothing but a few cases of typhoid fever in the spring, and a little later a few sporadic cases of scarlatina, most of them very mild. Most of the typhoid cases were caused by defective drainage and privy vaults.

Typhoid Fever—Slightly more than for two or three years.

Prevalence and character of Intestinal Diseases—No marked increase. During the summer months, largely among children under five. Only five or six cases of dysentery—mostly cholera morbus in the adults—and gastro enteritis and many cases of cholera infantum in children.

Scarlet Fever—A few cases, mostly very mild, one death.

Measles—Less than usual.

Diphtheria—Very little.

Malarial Diseases—Compared with '86, about the same.

GREENWICH—C. S. MEAD, M.D.

Diseases specially prevalent—Measles only.

Probable reason—That measles had not occurred to any extent for several years, and at this time the number who were liable to contract the disease was large.

Typhoid Fever—As compared with former years, rather less.

Prevalence and character of Intestinal Diseases—About the same as usual. Most of the cases were infants and they sick during the hot months. The form was as a rule gastro-intestinal. There were very few cases of dysentery.

Scarlet Fever—About the same as in other years, mild type.

Measles—An unusual number of cases.

Diphtheria—Not more than three or four cases.

Malarial Diseases—As compared with '86, about the same.

MONROE—JOHN G. STEVENS, M.D.

No diseases specially prevalent.

Typhoid Fever—None past year.

Intestinal Diseases—Not any more than usual. A few cases of cholera morbus and dysentery among the older people, and about the usual number of intestinal disorders in children.

Scarlet Fever—Have not known of a case.

Measles—Very few cases.

Diphtheria—Have known of no cases this year.

Malarial Diseases—No more than in '86.

NEW CANAAN—W. G. BROWNSON, M.D.

Diseases specially prevalent—None, except that in November, '86 we had several cases of diphtheria, three of which in one family were fatal. But one fatal case in '87.

Typhoid Fever—As compared with former years, less; not a case that I recall during the present year.

Intestinal Diseases—Less than usual. A few diarrhœal cases of mild type among children during the summer months. No dysentery.

Scarlet Fever—A very few cases of moderate severity, none fatal.

Measles—None during this year. A few cases in November, '86, as stated in answer to first question. One fatal case in January, '87; very few cases since of mild type.

Malarial Diseases—As compared with '86, decidedly less. We have but little to do now in this town with malarial diseases. A few that have had malaria in former years are troubled a little with it occasionally. The primary cases are rare.

NEWTOWN—E. M. SMITH, M.D.

Diseases specially prevalent—During January, February and March more than the average number of cases of bronchitis, especially of the capillary variety, among infants and young children, although the usual months for these diseases, yet the number of cases was greater than usual.

Typhoid Fever—As compared with former years, a number of cases—about the average, some imported. Was able to trace the real source in none.

Prevalence and character of Intestinal Diseases—Perhaps no more than usual, but considerable dysentery during latter part of summer among adults.

No scarlet fever or measles.

Diphtheria—Only a few cases, and with no special characteristics.

Malarial Diseases—As compared with '86, true intermittent fever, probably less, other malarial manifestations have been more prevalent.

NORWALK—J. G. GREGORY, M.D.

No diseases specially prevalent.

Typhoid Fever—As compared with former years, less. Its cause in most of the cases reported can be traced to imperfect sewerage or to unsanitary surroundings.

Prevalence and character of Intestinal Diseases—A little above the average, July and August affecting children mostly; gastro-intestinal; a few cases of cholera infantum. Among adults, diarrhoea and cholera morbus and sporadic cases of dysentery.

Scarlet Fever—Few cases, scattered, and of a mild type.

Measles—A mild epidemic, confined to a limited area.

Diphtheria—No epidemic, though a few cases have been reported every month. Some have terminated fatally and in one case the death was evidently due to cesspool poisoning.

Malarial Diseases—As compared with '86, more.

REDDING—M. H. WAKEMAN, M.D.

No diseases specially prevalent. No diphtheria or scarlet fever, and very few cases of measles. Less typhoid fever and less malaria than in '86. The health of the town of Redding was never better than during the past year.

RIDGEFIELD—W. S. TODD, M.D.

Diseases specially prevalent—None.

Typhoid Fever—As compared with former years, more. There have been three cases diagnosed as such: They were characterized by a continued fever, but nearly disappearing every seventh day, and increasing the following day.

Prevalence and character of Intestinal diseases—In July and August there were several cases of diarrhœal diseases among children of a catarrhal form. Diarrhœas were prevalent among adults, but not serious enough to call for much medical advice.

Scarlet Fever—None.

Measles—In the Center district, a few cases; in the Titiens district it was general, nearly all children attacked. Only three adults in town.

Diphtheria—None.

Malarial Diseases—Compared with '86, less; hardly any.

SHERMAN—JOHN N. WOODRUFF, M.D.

No specially prevalent diseases. Less typhoid fever than formerly; no scarlet fever or prevalence of intestinal diseases, measles or diphtheria. Malarial diseases about the same as in '86.

STRATFORD—WM. B. COGSWELL, M.D.

No diseases specially prevalent.

Typhoid Fever—About the same as in former years, and generally caused by bad drainage.

Prevalence and character of Intestinal Diseases—During the summer there was a good deal of diarrhœa and dysentery among the children.

Scarlet Fever—Prevailed to a slight extent, but of a mild type.

Measles—A few cases. There has been a good deal of diphtheria in West Stratford, and a good deal of it of a severe type.

Malarial Diseases—Prevailed about the same as in '86, except during months of August and September, when there seemed to be a good many cases. No special cause could be assigned for it.

TRUMBULL—SETH HILL, M.D.

No diseases specially prevalent.

Typhoid Fever—As compared with former years, none that I considered typhoid. Several that came under the nomenclature of malarial or typho-malarial. Typhoid may have been about, but they presented very different symptoms from the typhoid of fifteen years ago.

No prevalence of intestinal diseases.

Scarlet Fever—A few cases of simplex.

Measles—None.

Diphtheria—Very limited.

Malarial Diseases—As compared with '86, more. Had more cases of malarial trouble in August and September than ever.

WESTPORT—L. T. DAY, M.D.

Diseases specially prevalent—Scarlet fever, diphtheria, pneumonia, malaria and bronchitis in the spring; malaria, diarrhœas and typhoids in summer and autumn.

By better sanitation there would undoubtedly be a decrease in the prevalence of the above named diseases.

Typhoid Fever—Compared with former years, about the same. One case seemed to be traced to a filthy garbage heap which was partly composed of the refuse of a butcher's shop.

WESTON—FRANK GORHAM, M.D.

Diseases specially prevalent—Mumps and measles. In the epidemic of mumps which prevailed during the spring months, noticed an unusual tendency toward metastatic complications.

Typhoid Fever—Compared with former years, more prevalent.

Intestinal Diseases—No unusual prevalence of any form; a few cases of dysentery.

Scarlet Fever—None at all.

Measles—Quite prevalent during spring months, rather severe type.

Diphtheria—Very slight, mostly mild cases, two bad cases, both recovered.

Malarial Diseases—More frequent than last year.

WILTON—A. B. GORHAM, M.D.

Diseases specially prevalent—Malarial troubles in various forms. Typhoid or enteric fever and diarrhœal diseases.

Typhoid Fever—Has prevailed more than in former years.

Intestinal Diseases—Seemed to be quite common during August and September, among adults, dysentery especially.

Scarlet Fever—None.

Measles—No measles except the so-called german measles or Rotheln which seemed to be quite common during November and December.

Diphtheria—None.

Malarial Diseases—Compared with '86, there has been a decided increase.

WINDHAM COUNTY.

ASHFORD—J. H. SIMMONS, M.D.

Diseases specially prevalent—In the north-west and north part of the town there were many cases of typhoid fever and many fatal ones for such a community.

It was a farming community and there had been no changes in the surrounding of the dwellings for years. In one family possibly there was sink drainage into the well, in another one the internal condition was unsanitary and unclean, with faulty care and nursing. In another there were three sick at once and only a single room suitable for a sick room, all uncleanly; from one of these families two, one fatal from relapse, who assisted in the care of the sick, took the fever.

Typhoid Fever—As compared with former years, less than last year. More than many years before, malarial fever seemed to take the place of typhoid.

No prevalence of intestinal diseases, scarlet fever, measles or diphtheria.

Malarial Diseases—Compared with '86, about the same.

BROOKLYN—WM. WOODBRIDGE, M.D.

Diseases specially prevalent—Measles.

Typhoid Fever—About the same as in former years. There is generally but little of it here.

Intestinal Diseases—No unusual prevalence.

Scarlet Fever—Very few cases and of a mild type.

Measles—Quite prevalent.

Diphtheria—Very little.

Malarial Diseases—I do not know of any that originated here.

EASTFORD—E. KEYES ROBBINS, M.D.

A few cases of pneumonia early in the spring. Less typhoid fever and malarial diseases than in '86.

The health of the town has been unusually good during the last year.

KILLINGLY—H. L. HAMMOND, M.D.

Diseases specially prevalent—Diphtheria has been quite prevalent in certain localities during the past year. In many of the cases, the causes could be attributed to imperfect drainage, choked-up, reeking cess-pools, and pig pens in close proximity to the wells. In several cases that proved fatal, public funeral ceremonies were held. The Board of Health of the town, have not to my knowledge taken any very active measures to prevent people from visiting cases of diphtheria, in fact proper notices have not been given to the public of their time and place of meeting if they ever had one.

Typhoid Fever—Less than in former years.

Intestinal Diseases—Have not prevailed more than usual.

Scarlet Fever—Few cases uncomplicated.

Measles—Very limited.

Malarial Diseases—Have in my opinion prevailed less than in '86. I consider that more attention has been paid to the Sanitary condition of our factory villages, during the past year than in previous years.

PLAINFIELD—DANIELSONVILLE AND WAUREGAN—W. H. JUDSON, M.D.

No diseases specially prevalent.

Typhoid Fever—About the same as in previous years.

Prevalence and character of Intestinal Diseases—Less than common, very amenable to treatment; no dysentery to speak of.

Scarlet Fever—Isolated cases, mild.

Measles—Mild, not as epidemic.

Diphtheria—Mild and slight.

Malarial Diseases—Compared with '86, less or about the same.

PLAINFIELD—W. A. LEWIS, M.D.

Diseases specially prevalent—Catarrhal troubles, attributed to sudden atmospheric changes.

Typhoid Fever—As compared with former years, rather more.

Intestinal Diseases—No more prevalent than usual.

Scarlet Fever—Not as much as usual and rather mild.

Measles—Limited in prevalence.

Diphtheria—About as usual.

Malarial Diseases—Compared with '86, less.

PUTNAM—OMER LA RUE, M.D.

Diseases specially prevalent—Measles, scarlet fever and typhoid fever. Autumn and spring we had several cases of bronchitis and dysentery.

The main number of typhoid fever cases were in Ballou's village. The people there have water from the water-works in their houses, but they prefer drinking well water because it is cooler during summer. The supply comes from one well from 30 to 40 feet deep. On both sides of this well at a distance of twenty to thirty feet are cess-pools which have been used many years by several families. It is admitted that a well drains the land all around it as far as it is deep. And it seems to me that this was the principal cause of typhoid fever in that locality.

Typhoid Fever—Compared with former years, more. I had not seen since the last five years many cases of true typhoid fever. It had been replaced by fever with malarial symptoms. When the first malarial cases began to appear in this place we had a diminution of typhoid fever cases. The contrary seems to have taken place this year. More typhoid but less malarial diseases.

Prevalence and character of Intestinal Diseases—Not more than usual. Spring and autumn, all ages but more in children, dysentery.

Scarlet Fever—We have several cases of scarlet fever almost every year. The majority of cases were of mild character, but we had about five per cent. which took the malignant form.

Measles—Moderately prevalent.

Diphtheria—We had no true epidemic of diphtheria, every year we have some cases in children, with the usual character and the usual percentage of fatal cases.

THOMPSON.

Our correspondent last year gave an unfavorable report of the sanitary condition of this place, particularly in the village of N. Grosvenordale. In this part of the town there had been an unusual amount of sickness, which he ascribed largely to the low, swampy site, the over-crowded and badly constructed tenement houses, and the pollution of well water, from too close proximity of privies and cess-pools.

The communication awakened an interest in influential persons concerned in the welfare of the place and its inhabitants, and the

mill proprietors have caused an inspection to be made by one of the local physicians, Dr. L. P. Causey, and they wrote me in June last, that they "are taking prompt measures to correct every fault that can be found to exist." It is to be regretted that no report is made this year.—(SECRETARY).

WOODSTOCK—HENRY R. LOWE, M.D.

Diseases specially prevalent—Diphtheria, scarlet fever and typhoid fever, pneumonia, rheumatism and influenza. Diphtheria in one family was caused by the sink drain running into the well, three cases out of the five proved fatal. The scarlet fever came from Providence, R. I. Some of the cases of typhoid fever caused by surface water into the well and others by sink drains.

Typhoid Fever—Has prevailed more than it has for the last three years.

Prevalence and character of Intestinal Diseases—Dysentery prevailed to quite an extent during August and September and among adults, and cholera infantum among children.

Scarlet Fever—Quite prevalent but of a mild type.

Measles—None.

Diphtheria—Has prevailed quite extensively, but most of the cases quite mild except a few cases which were of a malignant type.

Malarial Diseases—Compared with '86—more.

LITCHFIELD COUNTY.

BETHLEHEM—W. F. FOLLANSBEE, M.D.

No diseases specially prevalent.

Typhoid Fever—As compared with former years, less.

Intestinal Diseases—No more prevalent than usual.

Scarlet Fever—None.

Measles—More prevalent than in '86.

Diphtheria—None.

Malarial Diseases—Compared with '86, less.

GOSHEN—JOS. HOWARD WORTH, M.D.

No diseases specially prevalent.

Diseases of unusual character—One fatal case of traumatic tetanus believed to have been imported from Litchfield.

Typhoid Fever—None.

Intestinal Diseases—Not prevalent to any extent, a little dysentery in early summer and the spring, very readily relieved however, with opiates, camphor, bismuth, etc.

Scarlet Fever—Not any.

Measles—A few cases in one family, of a mild type, contracted in Hartford County and brought here.

Diphtheria—None.

Malarial Diseases—None.

KENT—JOHN W. KING, M.D.

Diseases specially prevalent—None.

Typhoid Fever—Compared with former years, less. Since the epidemic of malarial fever of '82 we have had but little typhoid fever.

Prevalence and character of Intestinal Diseases—Intestinal diseases have not prevailed more than usual; some diarrhœa and a few cases of dysentery.

Scarlet Fever—None.

Measles—None.

Diphtheria—I have had four cases of diphtheria characterized by great prostration and weakness of heart's action, large pieces of membrane being detached from the throat; all recovered. One death in town from diphtheria, but that did not come under my care.

Malarial Diseases—Malarial diseases have not prevailed more than '86; have had but little since epidemic of '82.

LITCHFIELD—H. E. GATES, M.D.

Diseases specially prevalent—Yes, we had a thorough epidemic of measles which took in about all the school districts, and in the Bantam District a good deal of whooping-cough. So severe was the epidemic of pertussis that it closed the schools. This summer a good deal of dysentery but quite tractable.

Typhoid Fever—I do not know of any having occurred.

Intestinal Diseases—Some dysentery, mild. During the extreme heat we had intestinal troubles among children, but not to any greater extent than usual. It must be remembered that this is a great resort for children from cities with bowel troubles.

Scarlet Fever—None of any consequence.

Measles—This epidemic was very thorough.

Diphtheria—Very little, very light, no deaths.

Malarial Diseases—We never have them.

LITCHFIELD—NORTHFIELD—C. L. BLAKE, M.D.

Diseases specially prevalent—Measles.

Typhoid Fever—Have not known of a case during the last year.

Prevalence and character of Intestinal Diseases—I have treated more cases of dysentery this year than usual. Mild form and yielded readily to treatment. They occurred in July and August.

Scarlet Fever—Only two cases in this village. Simple type.

Measles—Cannot say how many cases there were, but nearly every family in the place was visited. Almost every one who had never had them was attacked. Cases were uncomplicated and all recovered.

Diphtheria—None.

Malarial Diseases—About the same as last year. Very little in this part of the town.

NEW MILFORD—JAMES HINE, M.D.

Diseases specially prevalent—Pneumonia, bilious remittent fever, whooping-cough and mumps, about six cases each.

Typhoid Fever—Compared with former years, less as there had not been a genuine case of typhoid fever within the year in the town.

Prevalence and character of Intestinal Diseases—Rather less, a small number of mild cases, mostly among children, with a few cases of mild type of dysentery included.

Scarlet Fever—Only about three (3) light cases.

Measles and Diphtheria—None.

Malarial Diseases—About the same as last year, only an occasional revival in subjects which have formerly had it.

NORFOLK—J. C. KENDALL, M.D.

The past year has been marked by rather less serious disturbances of the public health. There have been no epidemics. There have been a very few cases of whooping-cough strictly localized. In the summer coincidently with unusual prevalence of dysentery in an adjoining town there were a few cases of mild

bowel trouble, which had no relation with each other or with the cases alluded to. Our water courses are all small, have their sources within this township and empty into the Housatonic, Naugatuck and Farmington rivers. We have no nuisances. Malarial influences are at present inert. From May 30th to October 25th there was only one natural death (Sept. 13th), of residents of the town within the town, and that person did not belong here. Our summer population is about 1800.

PLYMOUTH—J. B. HEATH, M.D.

Diseases specially prevalent—Measles.

Typhoid Fever—Have not seen a case.

Prevalence and character of Intestinal Diseases—Rather more dysentery than usual and of a typhoid type.

Scarlet Fever—None in my practice.

Measles—We had a severe epidemic of measles, taking in adults as well as children, and of a severe type.

Diphtheria—Very little in this locality.

Malarial Diseases—About the same as in '86.

PLYMOUTH—TERRYVILLE—WM. P. SWETT, M.D.

Diseases specially prevalent—Diphtheria.

Typhoid Fever—Compared with former years, less.

Prevalence and character of Intestinal Diseases—Cholera infantum—June and July. Not more dysentery than usual, though people generally were more careful about eating fruit on account of diarrhœas produced thereby.

Scarlet Fever—Not at all.

Measles—Not at all.

Diphtheria—There have been solitary cases of diphtheria since June. I could ascertain no direct cause; nor find a reason why small children in the house, and *same room* with the sick were not also infected by it. There has been no case in which the larynx was affected. The local trouble being confined to the tonsils and soft palate. The glands were greatly enlarged and the cases proved generally fatal in a very few hours.

Malarial Diseases—We have some headache due to malaria, very rarely a case having well developed the three stages.

ROXBURY—L. J. PONS, M.D.

Diseases specially prevalent—Bronchitis and erysipelas, more than last year.

No typhoid fever or diphtheria.

Intestinal Diseases—Less than last year.

Scarlet Fever—Two cases, mild.

Measles—A few light cases.

Malarial Diseases—About the same as last year.

THOMASTON—R. S. GOODWIN, M.D.

Cholera infantum and dysentery were the only diseases specially prevalent during the year. These diseases prevailed during the months of July and August. I estimate that about fifteen deaths occurred from these two diseases during the months mentioned.

Protracted hot weather and an unusual number of bottle-fed babies were the principal causes. There were no deaths among infants nursed by their mothers.

There were only a few cases in which I believe the causes were removable. These causes were polluted wells and an unsanitary condition of the premises.

Typhoid Fever—Compared with former years, we have had three or four mild cases with no deaths. This is about as usual. So far as I know, it was impossible to trace the source of the disease in any case.

Prevalence and character of Intestinal Diseases.—In July and August. Cholera infantum has prevailed among bottle-fed infants, and dysentery among old people especially, but to some extent, also, among the young and middle aged.

Scarlet Fever—There have been only three or four cases, and these of a very mild type, with no great tendency to spread. No deaths from this disease.

Measles—Quite a number of cases of measles occurred in that part of the town east of the Naugatuck River, occupied by Irish families, in the early months of spring. There were no fatal cases that I know of, except one, which was an infant.

Diphtheria—Diphtheria has occurred in two or three families in different parts of the town, and has gone pretty much through the family in each instance, but has not spread to the neighboring families. Efforts were made by the physicians in charge to pre-

vent the spread of the disease, by cautioning members of the family to remain at home, and by preventing others from going to the infected houses. The disease has got no foothold here as an epidemic, nor have there been any malignant or fatal cases.

Malarial Diseases—About the same, I think, as in '86; certainly no more.

TORRINGTON—W. L. PLATT, M.D.

Diseases specially prevalent—Measles and scarlet fever have been with us most of the time.

Epidemic of diphtheria in December and January, '86, and again in September, '87.

Disease was confined to families where unfavorable sanitary conditions prevailed.

Typhoid Fever—Compared with former years, rather more than in '86. It has been thought that some of the cases were due to the disturbance of soil incident to putting in a sewer system.

Prevalence and character of Intestinal Diseases—During the months of July, August and September diarrhœas and dysentery prevailed to an unusual extent among children especially. Some adults were affected, but were no fatal cases among older persons.

Scarlet Fever—Has been with us at several different times during the year. Milder type.

Measles—A few endemic cases.

Diphtheria—Two distinct epidemics, characterized by a special tendency to invasion of larynx.

Malarial Diseases—Compared with '86, should think, less.

WARREN—J. B. DERRICKSON, M.D.

The past has been an exceptionally healthy year. Less typhoid fever than usual only one case of dysentery and that imported from Waterbury. No scarlet fever, measles, diphtheria or malaria.

WASHINGTON—O. BROWN, M.D.

No diseases specially prevalent.

Typhoid Fever—Compared with former years, decidedly less. Have known of but two or three well marked cases during the year, and these could not be traced to any special cause.

Intestinal Diseases—Less intestinal diseases than has been during any of the last fifteen years.

Scarlet Fever—Sporadic cases of scarlet fever have occurred, but no general epidemic, about twenty cases in all, the majority of which were of a mild type.

Measles—But few cases.

Diphtheria—But few cases, and those of a mild type.

Malarial Diseases—But few, if any, cases have occurred.

WATERTOWN—WALTER S. MUNGER, M.D.

Diseases specially prevalent—Intestinal diseases. Perhaps the hot weather may have been the (or a) predisposing cause of the intestinal troubles in the latter part of summer.

Typhoid Fever—None, I think, within the limit of the town. Two or three cases just over the line.

Prevalence and character of Intestinal Diseases—During the latter half of July and the whole of August there was rather more than the usual amount of diarrhoea and dysentery; a few fatal cases from the latter, mostly among children.

Scarlet Fever—None.

Measles—Rather common in the spring, particularly in southern part of town.

Diphtheria—Very little and very mild.

Malarial Diseases—I think, less. One case of positive chills and fever, developed about three weeks after child-birth, one or two other cases who had been in a malarial district. Not prevalent.

WINCHESTER—J. W. BIDWELL, M.D.

Diseases specially prevalent—We had mumps and whooping-cough in abundance. Also quite a number of sporadic cases of scarlet fever and diphtheria.

We have quite a large number of children in town, who had not had the first named diseases, consequently the field was favorable, when once introduced for such development.

Typhoid Fever—We do not have half as many cases of typhoid fever as we did fifteen or twenty years ago, while then the population was much less than now.

Prevalence and character of Intestinal Diseases—During July and August there was some dysentery among adults, middle-aged

and older. None fatal. Infants escaped, remarkably, the gravest results of intestinal diseases.

Scarlet Fever—There have been quite a number of sporadic cases of scarlet fever during the winter, spring and summer. All mild cases with one exception.

Measles—Very few cases. All recovered.

Diphtheria—Diphtheria like scarlet fever has occurred in a mild form, in neither disease has there been any contagiousness manifested.

In one house with defective drainage there were two deaths. All other cases were amenable to treatment.

Malarial Diseases—Malarial diseases are less frequent this year than last.

WOODBURY—H. M. SHOVE, M.D.

After consulting the records of mortality of this town and attempting to present a report, which covers the now closing year, we can announce that we have been spared from the prevalence of any special diseases or serious sickness.

The population of the town numbers about twenty-two hundred. Total number of deaths during the year, twenty-eight. Excluding six deaths from consumption, five from old age, three from accident, four from hopeless chronic causes, leaves only ten deaths to be accounted for, from acute, sporadic and epidemic diseases, which are reported as follows: pneumonia three, whooping-cough two, cholera infantum two, dysentery two, measles one. During the winter and spring months we had an unusual prevalence of measles. Many of the cases were complicated by bronchitis and pneumonia. Several of the public schools were discontinued in consequence of the general spread of the disease.

An epidemic of whooping-cough prevailed during the spring. It was of a mild type.

This fall diarrhœal diseases have been frequent, with a few cases approaching dysenteric symptoms from which two deaths are reported.

No cases of typhoid fever, no malaria. A few cases of mild scarlatina, and a few slight cases of diphtheria have occurred.

Pneumonia is one of the familiar and most frequent diseases of this vicinity.

The small percentage of the death rate from acute diseases and

the large number of deaths from old age, will place this town among the most healthful districts of the state.

MIDDLESEX COUNTY.

CHATHAM—EAST HAMPTON—CASPER BARSTOW, M.D.

Diseases specially prevalent—Measles and malaria. Some of the summer months were very moist, and I think, might have had something to do in causing the malaria.

Scarlet Fever—Several cases occurred in the eastern part of the town, but only two cases proved fatal.

Measles—A regular epidemic.

Diphtheria—Not any.

Malarial Diseases—Compared with '86—more.

CHESTER—S. W. TURNER, M.D.

Diseases specially prevalent—Measles. Whooping-cough. More pneumonia than usual.

Typhoid Fever—None at all.

Intestinal Diseases—Very slight in extent. Not a severe case of cholera infantum or dysentery.

Scarlet Fever—A few mild cases.

Measles—In one district epidemic. No fatal cases or complications.

Diphtheria—No severe cases. Hardly to be called diphtheria.

Malarial Diseases—Compared with '86, about the same amount. Cases quite hard to control. Many cases among persons past the meridian who had never before had malaria, and more quotidiens than in any previous year.

CLINTON—DAVID A. FOX, M.D.

Diseases specially prevalent—Pneumonia, rheumatism, neuralgia and malaria. During the three first months of the year, we had a catarrhal influenza which was quite persistent and very prevalent. Some whooping-cough. Later erysipelas and mumps. Several cases.

Typhoid Fever—I have had two cases, well marked this year. The first for a number of years. No unsanitary condition observed.

Intestinal Diseases—No more prevalent than usual.

Scarlet Fever—A few cases of mild type in different localities.

Measles—Have been called to see six cases. Mild.

Diphtheria—None genuine.

Malarial Diseases—Compared with '86, must say more. A few cases of chills and fever in children.

DURHAM—RUFUS W. MATHEWSON, M.D.

Typhoid Fever—As compared with former years, more. Five cases with no apparent unhealthy surrounding. Two cases from contamination of the drinking water. In one of these cases the waste from the house, the privy and a hen yard went into a well at the foot of the hill, where they all stood.

Intestinal Diseases—Cholera infantum and diarrhœa.

No scarlet fever or measles.

Diphtheria—Ten cases, three deaths. The most of those taken had just attended the Barnum circus. More vomiting than usual. I saw but one of the fatal cases; this died from inanition three weeks after the first attack. Throat had recovered but the appetite did not return.

Malarial Diseases—About the same as in '86.

EAST HADDAM—E. H. BIDWELL, M.D.

Diseases specially prevalent—No others than malarial.

Probable cause—Common origin of malaria, and am inclined to think that according to our present understanding of malarial ailments the causes in some cases could and should have been removed.

Diseases of unusual character—If they may be so considered, three cases of congestive chills, patients remaining unconscious for about one hour, all occurred at about same time; but could trace no connection or cause.

Intestinal Diseases—Nothing to mention.

Scarlet Fever—One malignant case; recovered.

Measles—Three cases.

Diphtheria—Four mild cases, nothing special.

Malarial Diseases—Compared with '86, about the same in extent; I think, however, a trifle more severe.

ESSEX—C. H. HUBBARD, M.D.

Diseases specially prevalent—During January, March and April occurred several cases of pneumonia, of which three were fatal. The fatal cases may have thus resulted, from previous conditions, referable to the individuals themselves. I know of no special causes, except as existing in our changeable and trying climate.

Typhoid Fever—Compared with former years, less; do not know of a case this year within the limits of the town.

Prevalence and character of Intestinal Diseases—Less by far than usual. Chiefly among adults. A few cases of dysentery in mild form. The same may be said of diarrhœa.

No scarlet fever or measles.

Diphtheria—Very few cases of mild type, catarrhal.

Malarial Diseases—Perhaps no more than in '86, but have yielded less readily and satisfactorily to treatment. Irregular types and "masked" forms prevalent.

HADDAM—MINER C. HAZEN, M.D.

Diseases specially prevalent—It has been a year of unusual health. We had in the winter and spring an epidemic of whooping-cough, attacking not only the children, but many adults who had previously suffered from the disease.

Typhoid Fever—Compared with former years, a few cases. There has been little typhoid since malarial troubles have been prevalent. More this year than usual.

Intestinal Diseases—Have prevailed less than usual and have readily yielded to treatment.

Scarlet Fever—A few scattering cases in different parts of the town, generally of a mild type.

Measles—Only a few cases.

Diphtheria—I have seen no genuine cases.

Malarial Diseases—Compared with '86, generally less. In the spring months malarial difficulties were common, but on the whole, the year has had less of malaria than for many years past.

KILLINGWORTH—E. P. NICHOLS, M.D.

No diseases specially prevalent.

Typhoid Fever—Compared with previous years, less; no cases this year.

Intestinal Diseases—No dysentery; an occasional case of diarrhœa in children from improper diet, or, rather too much diet.

No scarlet fever, measles, or diphtheria.

Malarial Diseases—Less than in '86.

MIDDLEFIELD—RUFUS W. MATHEWSON, M.D.

No diseases specially prevalent.

I have attended six cases of pneumonia, two of which were fatal in old people, died from typhoid complication during spring.

Typhoid Fever—I have attended three cases of typhoid fever, none fatal. Two of the patients in the same family; originated in Middletown and were removed to Middlefield. Resulted from water contamination, the sink drain found its way into the well which was in the cellar; no cases fatal.

PORTLAND—C. E. HAMMOND, M.D.

No diseases specially prevalent.

Typhoid Fever—Compared with former years, more prevalent than last year; it has been on the increase for the last few years.

Intestinal Diseases—Have prevailed more than usual in the summer months. In August and September had more dysentery than for several years, it was of a typhoid type.

Scarlet Fever—A few cases of a mild form.

Measles—None.

Diphtheria—Less diphtheria than last year. Where we have usually had the most diphtheria the sanitary condition has been improved.

Malarial Diseases—Compared with '86, less.

SAYBROOK—DEEP RIVER—E. BIDWELL, M.D.

Diseases specially prevalent—During the months of March and April bronchial troubles and pneumonia prevailed. Cases of pneumonia occurring in different part of the town, with some fatal cases.

Typhoid Fever—No cases.

Scarlet Fever—One case, mild.

Measles—None.

Diphtheria—A few cases, none fatal.

Malarial Diseases—Malarial troubles have very much decreased for the past three or four years. I think about the same this year as last.

WESTBROOK—T. B. BLOOMFIELD, M.D.

No diseases specially prevalent. No cases typhoid fever, measles or diphtheria.

Prevalence and character of Intestinal diseases—The usual number of cases of summer diarrhœa in children, and particularly in bottle-fed infants, which in nearly every case were amenable to usual treatment, and care paid to diet.

Scarlet Fever—Four cases. Two fatal. About September 1st, scarlet fever broke out in one of our most intelligent families. The mother was taken with sore throat, and mouth, and died after an illness of 72 hours. The disease was not recognized until a few hours before death ; in exactly six days from time of death, a daughter, the mother of two children was attacked, and went through the course of the disease safely, in two or three days from the period of invasion in the latter (the writer cannot say exactly) a little son of the latter patient sickened and died after an illness of nearly a week. The infant daughter became sick at the same time and survived.

In looking about for the cause of infection, I found that a family from Meriden who had been afflicted during the latter part of the spring, had as usual come to the seashore here for their annual "outing." While here, the children were attacked with some type of malarial fever, and this lady (the head of this stricken family) had been in constant attendance, nursing them. Inquiry revealed that at no season had she traveled as little as that, and I had to eliminate all other sources of contagion, and think that the disease germ had been in some way imported from Meriden.

It is well known that nearly all of the cottage owners bring their bedding and clothing in the beginning of the season, and remove it at the close.

Malarial diseases—More than in '86 during latter part of August and nearly whole of month September. Intermittents were very general. Those who escaped were in the minority.

TOLLAND COUNTY.

ANDOVER—E. P. FLINT, M.D.

Diseases specially prevalent—Whooping-cough and bronchial inflammations. Several cases of each were quite severe. The former attacked adults in two or three instances. The latter in some cases, were complicated with pharyngitis and in others with mild laryngitis producing persistent hoarseness and cough.

Diseases of an unusual character—In March there were two fatal cases of cerebro-spinal fever at the children's County Home, but careful isolation and sanitary precautions were observed, and no more cases followed; though there were about twenty inmates in the Home at the time. The origin of the disease seems a mystery as the children attacked were not new-comers.

Typhoid Fever—Compared with former years there have been only two or three cases, of a moderately severe type. At Hop River village, just south of this town, in Columbia, were several cases during the past autumn, of a severe type, though none fatal. Possibly an occluded sink-sewer, and a mill ditch left drained during nights and Sundays, may have contributed to cause the latter cases.

Prevalence and character of Intestinal Diseases—Dysentery has been more prevalent. Last winter, several cases of a rather mild type occurred in one family where the best of sanitary regulations prevail. The sink-drain was found to be obstructed and was immediately cleared and disinfected. During the fall, there have been several cases, one quite severe; no assignable cause. All attacked have been adults, two or three elderly.

Scarlet Fever—At the County Home, during October and November of last year, there were three rather severe cases, having fever and the eruption and throat affection well-marked. By careful exclusion of the other children from the sick-room and the liberal use of disinfectants, spread of the disease was prevented.

Measles—Two cases of mild character contracted in another town.

Diphtheria—No cases unmistakably diphtheretic.

Malarial diseases—Compared with '86 no cases distinctly malarial, though I think anti-malarial agents have been indicated more often in the treatment of other cases than during 1886.

BOLTON—CHAS. F. SUMNER, M.D.

No diseases specially prevalent. Less than usual. Typhoid fever and intestinal diseases, scarlet fever and diphtheria, but few cases of each, of mild type—measles—rather more than usual, some severe cases, none fatal.

Malarial diseases—About the same as in '86.

HEBRON—CYRUS PENDLETON, M.D.

No diseases specially prevalent.

Diseases of unusual character—One case of spinal meningitis in June, recovered.

Typhoid Fever—As compared with former years, less.

Intestinal Diseases—I think rather less than usual.

Scarlet Fever—Only a few cases.

Measles—Only a few cases.

Diphtheria—To only a limited extent; no severe cases and possessing no special characteristic.

Malarial Diseases—As compared with '86, during July, August and September, especially during August, more. But few cases of pneumonia have occurred, of these few mostly in old people and fatal. Deaths mostly from chronic diseases.

MANSFIELD—E. G. SUMNER, M.D.

Diseases specially prevalent—Measles and influenza.

Typhoid Fever—Compared with former years, no special difference.

Intestinal Diseases—No more prevalent than usual.

Scarlet Fever—Very limited and of the mildest type.

Measles—In a few families only.

Diphtheria—None.

Malarial Diseases—Compared with '86, no special difference.

SOMERS—WM. B. WOODS, M.D.

Town remarkably healthy. Less typhoid fever than in former years. Intestinal diseases no more prevalent than usual. A few cases of scarlet fever. No measles or diphtheria. Malarial diseases—Less than in '86.

TOLLAND—W. H. CLARK, M.D.

Diseases specially prevalent—Rheumatism.

Typhoid Fever—About the same as in former years.

Prevalence and character of Intestinal Diseases—About the same. Through the summer, both adults and children, dysentery and diarrhœa.

Scarlet Fever—No cases.

Measles—A few cases.

Diphtheria—No cases during the year.

Malarial Diseases—About the same as in '86.

VERNON—ROCKVILLE—E. K. LEONARD, M.D.

No diseases specially prevalent. Less typhoid fever than usual and but very little intestinal trouble. Scarlet fever and diphtheria. No measles and about the same prevalence of malarial diseases as in '86.

SECRETARY'S REPORT.

By C. A. LINDSLEY, M.D.

SECRETARY'S REPORT.

The sanitary legislation of Connecticut, so far as it relates to the administration of public hygiene, is all based upon the theory of placing the executive authority wholly upon the local boards of health and making them each responsible for the sanitary condition of their respective towns. It clothes the town boards with full power to do whatever in the judgment of said boards may be necessary for the protection and preservation of the health of their fellow townsmen.

Each Board in its own town may enact sanitary regulations for the government of the residents of that town, which regulations after being published in a prescribed method have the authority and effect of law. They are empowered to proceed in the most summary manner in all cases in which in their judgment it is necessary to prevent the spread of malignant, infectious or contagious disease. They may cause the prompt arrest, and punishment by heavy fines or even imprisonment, of any person who shall resist their legal orders or endeavor to prevent their being carried into effect. The power and authority to act, to do something, to bring about results, to accomplish sanitary reforms all rests in the Town Board of Health.

The State Board of Health is constituted on an entirely different basis. It has no authority to enforce sanitary reforms. It has no mandatory powers which it can apply to the removal or abatement of unsanitary conditions which endanger the public health. Its functions as a conservator of the health of the people are those of a consultant and counsellor. It is the highest authority in the State on the principles of sanitary science as applied to State medicine. It is the source from which the people, public officials and particularly local boards of health may seek for information on questions of public hygiene. Its duties are not executive, but rather those of a teacher, and also of a

learner ; for in its charter it is specified that it "shall make sanitary investigations and enquiries respecting the causes of disease and especially of epidemics, the sources of mortality, and the effects of localities, employments, conditions, *ingesta*, habits and other circumstances upon the public health."

The State Board is the head of the administration of public hygiene in the State, but the hands are the local boards,—the town boards—in them alone is lodged the executive power. The relations of the State Board to the town boards do not confer upon the former any power to dictate to, or direct the town boards, but only to give them information and practical suggestions promptly when requested, and to keep them informed of any threatened danger to the public health. In return the local boards shall give promptly to the State Board notice of epidemics, and confer with the State Board in the effort to control them. The local boards are also required to report annually to the State the sanitary work done by them.

This being the relation which the State and local boards bear to each other, it is quite evident that whatever effective sanitary work is done must be through the town boards. And that it is of prime importance that there should be mutual understanding, unrestricted intercourse and hearty coöperation between these two branches of the public health service, to accomplish the best results.

During the past year it has been the special effort of the Secretary to secure these results. In the first part of the year during the session of the Legislature the passage of the laws proposed by the Board was secured. These will be of value, in so far as they make obligatory upon every town the organization of a working board of health, in place of the fiction which has heretofore existed in most towns ; and further, the new laws bring the State Board into definite correspondence with the local boards, in every case of the occurrence of small pox or cholera, and of every epidemic of infectious diseases. Besides, the law requires now that a copy of the annual reports of local boards be sent also to the State Board. Thus in various ways the local boards are brought more directly in contact with the State Board than they ever were before.

Notwithstanding the law is so definite and obligatory upon towns to elect health officials, and in spite of the earnest effort made to secure obedience to it. Still it is to be regretted that a

few towns still neglect the duty, or have not fully complied by reporting the names of their health officials to the State Board.

One of the provisions of the new law requires the registrars of births, marriages and deaths to report during the first week of each month, to the Secretary of the board, a statement of the mortality of the previous month, each for their respective towns in a form prescribed by the board.

The following is the form of the report.

TO BE MAILED ON OR BEFORE THE 7TH DAY OF THE MONTH.

Deaths in Town of _____, Conn.
During Month of _____ 188

DISEASES.		DEATHS.
1. Small Pox
2. Measles
3. Scarlet Fever
4. Cerebro-spinal Meningitis
5. Diphtheria and Croup
6. Whooping Cough
7. Erysipelas
8. Typhoid Fever
9. *Malarial Fever
10. Typho-malarial Fever
11. Puerperal Fever
12. { †Diarrhoeal Diseases, under 5
" " over 5
13. Consumption or Phthisis
14. Pneumonia or Lung Fever
15. Bronchitis
16. All Diseases of Nervous System
17. Heart Diseases
18. Accident and Violence
19. All other causes except Still-births
Total Deaths during Month
Deaths under 5
Still Births

20. REMARKS:

Registrar.

* Includes Intermittent, Remittent, Congestive, Pernicious.

† Includes Cholera Infantum, Diarrhoea, Cholera Morbus, Dysentery, Entero-Colitis, Diarrhoeal Enteritis and Gastro Enteritis.

(Please note any mortality from unusual causes not specified in this blank.)

Please return blank card, if there were no deaths.

For reasons of economy and convenience it is printed on a postal card. The list of special diseases to be reported comprise most of those which are likely to occur epidemically, and respecting which there is the opportunity for boards of health to be active for the protection of the public.

The Secretary has taken advantage of this requirement and utilized the monthly reports of deaths in the towns of Connecticut in the preparation of a statistical table, giving the exact reports from all the towns of over 5,000 inhabitants, and summarizing the remaining towns.

This he has published in the form of a bulletin every month since the 1st of June, when the laws went into effect. The bulletin also contains a summary of the reports of his Sanitary Correspondents in many towns of the State, relating to the prevailing diseases, with such remarks as these reports suggest in regard to the sickness and death rates in the State, and in addition a meteorological table prepared by Sergeant J. H. Sherman, of the Signal Station at New Haven.

This bulletin is distributed to the registrars from whom the facts are derived—to all the members of the Legislature, to the officers of the local boards of health, to our sanitary correspondents, the Secretaries of the State Boards of Health, the exchanges, the sanitary journals, the libraries of colleges in Connecticut, the daily newspapers of the State, and to numerous private citizens who have requested them.

An edition of 1000 has been printed every month and over 900 distributed as above. Any citizen wishing a copy can have his name added to the list of recipients.

The prompt report to the Secretary of the occurrence of an epidemic of any sort, by the local boards, enables the State Board to be of some practical use, by furnishing immediately for distribution among the afflicted people a supply of circulars pertaining to the special disease.

In this way circulars on the prevention and restriction of diphtheria, typhoid fever, small pox and scarlet fever have been freely distributed in many towns throughout the State during the past year, which by their practical suggestions it is believed have been of value.

The Secretary has made an earnest effort to obtain a full report of the officers of the local boards of health. A list of the officers is appended.

The law fixes quite definitely the titles of the officers of town boards of health, to wit : a President, a Health Officer or Health Committee, and a Clerk, and makes it the duty of each board to report the names of all officers or committees elected, within ten days after such election.

In the reports received, but little attention has been paid to the designations which the law gives, and very frequently the officers are reported as Chairmen, Executive Committees, Health Physicians and Secretaries.

For the sake of uniformity the Secretary in publishing the list of officers, has taken the liberty to adopt the language of the law instead of the variety of terms employed in the reports. He regrets, also, the too frequent omission to report all the officers of the respective boards. Sometimes only one officer has been reported, in other instances two only. The most important omission is that of a Health Officer, or a Health Committee, which the law specially emphasizes, saying "said Health Officer, or Committee to be endowed with all the powers of said board of health, shall be elected," &c.

Six of the towns which have reported as having organized under the law have neglected to report the names of such health officers.

Every town in the counties of New Haven, New London and Windham, have organized a local board of health.

In Hartford county, Burlington, Simsbury and Suffield have failed to do so.

In Fairfield county, Brookfield reports "not organized." New Fairfield reports "will soon organize," and Trumbull reports that public sentiment is opposed to it.

Bridgewater is the only town in Litchfield county without a local board.

Chester, in Middlesex county, has not reported.

Also Hebron, in Tolland county, has made no report.

In some places, as in New Haven and Hartford, the city board has jurisdiction over the town, and the organization is under the special regulations of their city charters. In other places, as Bridgeport and Norwich, there are both town and city boards.

It is a matter of congratulation that during the first year of the law, the State of Connecticut has 160 local boards of health in the 167 towns within her borders.

The following is the list of the officers:

OFFICERS OF THE LOCAL BOARDS OF HEALTH IN
THE TOWNS, BOROUGHS AND CITIES OF
CONNECTICUT.

ANDOVER.

President and Health Officer—Roger Phelps.
Clerk—Edgar D. White.

ASHFORD.

President—
Health Officer—John H. Simmons, M.D.
Clerk—

AVON.

President—
Health Officer—R. W. E. Alcott, M.D.
Clerk—

BARKHAMSTED.

President—Monroe Hart.
Health Committee—Jas. N. Howard, L. A. Cook, L. Hurlbert.
Clerk—W. F. Beach.

BEACON FALLS.

President and Health Officer—Herbert C. Baldwin.
Clerk—Daniel J. Carrington.

BERLIN.

President—Wm. W. Norton.
Health Officer—R. E. Ensign, M.D.
Clerk—E. C. Woodruff.

BETHANY.

President—W. H. French.
Health Officer—
Clerk—Sam'l G. Davidson.

BETHEL.

President—Arthur S. Judd.
Health Officer—E. R. Lyon, M.D.
Clerk—Frederick E. Benedict.

BETHLEHEM.

President—Frank H. Stoughton.
Clerk—Fred'k Stockman.
Health Committee—Edgar A. Benedict, Nehemiah L. Bloss, Frank H. Stoughton.

BLOOMFIELD.

President—John Blackwell.
Health Officer—Henry Gray, M.D.

BOLTON.

President—Jabez L. White.

Health Officer—Chas. F. Sumner, M.D.

Clerk—

BOZRAH.

President—

Health Committee—Samuel G. Johnson, M.D., Simeon Abel.

Clerk—

BRANDFORD.

President—E. Zacher.

Health Committee—C. W. Gaylord, M.D., W. Zink, M.D.

Clerk—C. W. Gaylord, M.D.

TOWN OF BRIDGEPORT.

President—Emory F. Strong.

Clerk and Health Officer—Walter Goddard.

CITY OF BRIDGEPORT.

President—

Health Officer—R. Fitz Gibbon.

Clerk—C. A. Mooney.

BRIDGEWATER.

“We failed to hold a meeting for the election of officers as the law directs, consequently there are none.”

W. A. GILLET, *Town Clerk*.

BRISTOL.

President—Harrison S. Judd.

Health Committee—John Winslow, Jr., S. S. Hull, M.D., S. D. Bull.

Clerk—John J. Jennings.

BROOKFIELD.

“None have been appointed.”

HENRY S. BEERS, *Town Clerk*.

BROOKLYN.

President and Health Officer—Wm. Woodbridge.

Clerk—L. B. Cleveland.

BURLINGTON.

“The Board of Health of Burlington have never met for election of officers or any other purpose.”

JOHN A. REEVE, *Town Clerk*.

CANAAN.

President—M. W. Dean.

Health Committee—Major A. Nickerson, Jas. H. Hakes, Walter Lord.

Clerk—J. Lee Ensign.

CANTERBURY.

President—Jas. B. Palmer.

Health Officer—

Clerk—M. H. Sanger.

CANTON.

President—Geo. P. Edwards.

Health Committee—G. F. Lewis, M.D., Fred. W. Brainard, Chas. Blair.

Clerk—W. W. Bidwell.

CHAPLIN.

President—C. E. Griggs.

Health Officer—Orrin Witter, M.D.

Clerk—Jesse S. Turner.

CHATHAM.

President—John M. Ackley.

Health Committee—John M. Ackley, H. D. Chapman, H. B. Brown.

Clerk—H. B. Brown.

CHESHIRE.

President—Alonzo E. Smith.

Health Officer and Clerk—M. N. Chamberlin, M.D.

CHESTER.

No report received

CLINTON.

President—Geo. H. Brooks.

Health Officer—H. S. Reynolds, M.D.

Clerk—Leander Stevens.

COLCHESTER.

President—E. L. Strong.

Health Officer—M. W. Robinson, M.D.

Clerk—J. N. Adams.

COLEBROOK.

President—Horace North.

Health Committee—Horace North, P. Bowman.

Clerk—P. Bowman.

COLUMBIA.

President—Simon Hunt.

Health Committee—Joseph Hutchins, Albert Brown, W. A. Collins.

Clerk—W. A. Collins.

CORNWALL.

President—Solon B. Johnson.

Health Committee—John W. Beers, Ingersoll P. Reed, Wilson P. Sturges.

Clerk—L. J. Nickerson.

COVENTRY.

President—E. T. Flint, M.D.

Health Officer—W. C. Haven, M.D.

Clerk—J. B. Carmen.

CROMWELL.

President—Wm. M. Noble.

Health Officer—J. Francis Calef, M.D.

Clerk—Frank W. Bliss.

DANBURY.

President—N. B. Selleck.

Health Committee—E. A. Stratton, M.D., P. H. Lynch, M.D.

Clerk—Geo. Wakeman.

DARIEN.

President—Ira Scofield.

Health Committee—Sam'l Sands, M.D., Wm. F. French, M.D., B. W. Munson, M.D.

Clerk—Wm. F. French, M.D.

DERBY.

President—John B. Quilman.

Health Committee—John B. Gardner, Scott R. Baker, M.D., Jacob A. Fisk, Geo. L. Beardsley, M.D., Luzon Powell.

Clerk—Reuben H. Tucker.

DURHAM.

President—L. M. Leach.

Health Officer—C. C. Atwell.

Clerk—H. S. Merwin.

EASTFORD.

President—

Health Officer—E. Keyes Robbins, M.D.

Clerk—

EASTON.

President—Wm. Ward.

Health Officer—Chas. C. Sherman.

Clerk—Matthias Bradley.

EAST GRANBY.

President—Wm. A. Viets.

Health Committee—Jefferson R. Holcomb, Wm. A. Viets, C. J. Roadstrand.

Clerk—C. J. Roadstand.

EAST HADDAM.

President—Albert E. Purple.

Health Committee—Almond Day, Albert W. Bell.

Clerk—E. E. Johnson.

EAST HARTFORD.

President—

Health Officer—E. J. McKnight, M.D.

Clerk—E. O. Goodwin.

EAST HAVEN.

President—S. W. F. Andrews.

Health Committee—John S. Tyler, Grove J. Tuttle, Horace Woods.

Clerk—Chas. T. Hemingway.

EAST LYME.

President—

Health Officer—Fred'k H. Dart, M.D.

Clerk—

EAST WINDSOR.

President—Jabez S. Allen.

Health Committee—Henry W. Bissell, H. O. Allen, M.D., Wm. W. Ladd, L. D. Rockwell, Dan'l W. Bartlett, Alfred Weed, M.D.

Clerk—H. O. Allen, M.D.

ELLINGTON.

President—

Health Officer—Rufus J. Leonard.

Clerk—

ENFIELD.

President—Joseph N. Allen.

Health Officer—Jabez B. Davis.

Clerk—Fred'k E. Ely.

ESSEX.

President—W. C. Hough.

Health Officer—Willis A. Russell, M.D.

Clerk—Eben P. Lincoln.

FAIRFIELD.

President—Edward Hawkins.

Health Committee—C. H. Osborn, M.D., M. V. B. Dunham, M.D., W. H. Donaldson, M.D.

Clerk—W. H. Donaldson, M.D.

FARMINGTON.

President—George E. Taft.

Health Committee—Adran R. Wadsworth, Wm. W. Horton, M.D.

Clerk—Thomas L. Porter.

FRANKLIN.

President—

Health Officer—R. W. Woodward.

Clerk—S. G. Hartshorn.

GLASTONBURY.

President—Thos. H. Talcott.

Health Officer—Thos. H. Talcott.

Clerk—Wm. B. Goslee.

GOSHEN.

President—Lyman Hall.

Health Officer—Jos. Howard North, M.D.

Clerk—Frank W. Griswold.

GRANBY.

President—Chas. Coffey.

Health Officer and Clerk—W. A. Stratton, M.D.

GREENWICH.

President—W. L. Griswold, M.D.

Health Officer—L. P. Jones, M.D.

Clerk—W. L. Mason.

GRISWOLD.

President—Wm. Soule, M.D.

Health Committee—Wm. Soule, G. H. Jennings, M.D.

Clerk—Geo. H. Jennings, M.D.

GROTON.

President—A. R. Chapman.

Health Committee—Henry P. Hewett, Jas. L. Weaver, F. H. Brewer.

Clerk—F. H. Brewer.

GUILFORD.

President—Chas. Griswold.

Health Committee—Edwin W. Bartlett, Richard M. Leete, Geo. H. Beebe, M.D.

Clerk—Chas. H. Post.

HADDAM.

President—J. W. Clark.

Health Officer and Clerk—Le Roy A. Smith, M.D.

HAMDEN.

President—John T. Henry.

Health Committee—E. D. Swift, M.D., Michael Farrell.

Clerk—Ellsworth B. Cooper.

HAMPTON.

President—David Greenslit.

Health Officer—H. H. Converse, M.D.

Clerk—A. J. Greenslit.

CITY OF HARTFORD.

President—Jas. Campbell, M.D.

Clerk—W. W. Knight, M.D.

Sanitary Inspector—P. J. Darcy.

HARTLAND.

President—Flavel C. Newton.

Health Officer—Harvey L. Wilcox.

Clerk—Jonathan A. Miller.

HARWINTON.

President—Willis Catlin.

Health Committee—Willis Catlin, Henry E. Hinman, Joseph M. Baldwin.

Clerk—Norman A. Wilson.

HEBRON.

“No Board of Health in this town to my knowledge.”

S. B. FULLER, *Town Clerk*.

HUNTINGTON.

President—Stephen T. Palmer.

Health Committee—Warren C. Hubbell, Edward G. Hawley, Stephen T. Palmer, Gould A. Shelton, M.D.

Clerk—J. Tomlinson.

KENT.

President—Luther Eaton.

Health Committee—B. G. Pratt, Jerome F. Gibbs.

Clerk—Jerome F. Gibbs.

KILLINGLY.

President—E. A. Hill, M.D.

Health Committee—Rienzi Robinson, M.D., A. E. Darling, M.D., E. A. Hill, M.D.

Clerk—E. L. Palmer.

KILLINGWORTH.

President—Orville W. Brooks.

Health Officer—A. B. Stevens.

Clerk—David K. Stevens.

LEBANON.

President—

Health Committee—Walter G. Kingsley, Erastus G. Geer, Henry A. Spaford, Jesse Moffitt.

Clerk—

LEDYARD.

President—Hiram A. Hempstead.

Health Officer—John Brewster.

Clerk—Courtland Lamb.

LISBON.

President—Augustus Reed.

Health Officer and Clerk—W. T. Browne, M.D.

LITCHFIELD.

President and Health Officer—Wm. Deming, M.D.

Clerk—Chas. O. Belden, M.D.

LYME.

President—Frederick Fosdick.

Health Officer—J. G. Ely, M.D.

Clerk—Henry B. L. Reynolds.

MADISON.

President—John H. Meigs.

Health Committee—A. D. Ayer, M.D., Joel M. Hill, John H. Meigs.

Clerk—Henry B. Wilcox.

MANCHESTER.

President—Chas. D. Parsons.

Health Officer—C. W. Jaques, M.D.

Clerk—B. F. T. Jenney.

MANSFIELD.

President—E. G. Sumner, M.D.

Health Committee—E. G. Sumner, M.D., S. D. Yeomans.

Clerk—S. D. Yeomans.

MARLBOROUGH.

President—

Health Committee—Chas. Hall, Ames B. Latham.

Clerk—John Lord.

CITY OF MERIDEN.

Health Officer—A. W. Tracy, M.D.

Health Committee—S. D. Otis, M.D., C. E. Ellsbree, H. S. Matthews,
P. J. Murphy, H. W. Clark.

MIDDLEBURY.

President—

Health Officer and Clerk—Marcus DeForest, M. D.

MIDDLEFIELD.

President—Jas. T. Inglis.

Health Officer—M. W. Terrill.

Clerk—Geo. W. Durkee.

TOWN OF MIDDLETOWN.

President—

Health Committee—S. M. Bacon, Chas. J. Harris, Richard Davis,
Martin Loveland, Ira L. Gardiner, W. U. Pearne, D. J. Donahoe.

Clerk—Robert S. Hayes.

MILFORD.

President—W. H. Andrews, M.D.

Health Committee—James McCarthy, E. B. Heady, M.D., James W. Beach.

Clerk—P. S. Bristol.

MONROE.

President—S. G. Hurd.

Health Committee—S. G. Hurd, Burr Hawley, O. H. Hall, J. S. Stevens.

Clerk—Burr Hawley.

MONTVILLE.

President—

Health Committee—N. S. Comstock, Earl Matthewson, M.D., Wm. M. Burkhard, M.D.

Clerk—J. R. Gay.

MORRIS.

President—

Health Committee—Homer Stoddard, Rollin H. Harrison, James M. Benton.

Clerk—James M. Benton.

NAUGATUCK.

President—Walter F. Hinkley.

Health Officer—

Clerk—Edward B. Goodyear.

CITY OF NEW BRITAIN.

Health Committee—B. N. Comings, M.D., W. L. Morgan, H. P. Strong, G. W. Kittredge, G. P. Rockwell.

NEW CANAAN.

President—Francis M. Bliss.

Health Officer—W. G. Brownson, M.D.

Clerk—Chas. E. Hall.

NEW FAIRFIELD.

“Will elect officers on the 8th of February.”

J. J. TREADWELL, *Town Clerk*.

NEW HARTFORD.

President—

Health Officer—

Clerk—F. A. Jewell.

CITY OF NEW HAVEN.

President—Prof. Wm. H. Brewer.

Health Officer—C. A. Lindsley, M.D.

Clerk—Ward Bailey.

Sanitary Inspectors—Lewis Mix, John C. Jackson, Edward Coe.

NEWINGTON

President—John H. Fish.

Health Officer—L. V. Durand, M.D.

Clerk—Roger Welles.

CITY OF NEW LONDON.

Health Officer—H. S. Bartlett.

Health Committee—Wm. M. Bentley, M. Wilson Dart, Chas. C. Lippitt.

NEW MILFORD.

President—

Health Committee—Alexander Levy, Dr. Jas. Hine, F. E. Starr.

Clerk—F. E. Starr.

NEWTOWN.

President—Chas. W. Dayton.

Health Officer—E. M. Smith, M.D.

Clerk—John B. Wheeler.

NORFOLK.

President—L. L. Whiting.

Health Officer—F. E. Porter.

Clerk—R. J. Crissey.

NORTH BRANFORD.

President—

Health Committee—Martin C. Bishop, Edward Smith.

Clerk—Edward Smith.

NORTH CANAAN.

President—

Health Officer—Henry A. Smith.

Clerk—

NORTH HAVEN.

President—F. E. Jacobs.

Health Officer—R. B. Goodyear, M.D.

Clerk—Whitney Elliot.

NORTH STONINGTON.

President—

Health Officer—E. H. Knowles, M.D.

Clerk—E. P. Chapman.

NORWALK.

President—Oliver E. Wilson.

Health Committee—O. E. Wilson, Jas. G. Gregory, M.D., Dr. W. C. Burk, Jr.

Clerk—Clarence B. Coolidge.

TOWN OF NORWICH.

President—David Young.

Health Committee—David Young, L. S. Paddock, M.D., Patrick Cassidy, M.D., F. A. Tillinghast, M.D., Wm. Witter, M.D., J. S. Lathrop, Wm. T. Case.

Clerk—J. S. Lathrop.

CITY OF NORWICH.

Health Committee—Dr. P. Cassidy, John A. Bowen, Sylvester Fagan.

OLD LYME.

President—Joseph G. Perkins.

Health Officer—Geo. W. Harris, M.D.

Clerk—Chas. E. Peck.

OLD SAYBROOK.

President—S. H. Lord.

Health Officer—J. H. Granniss, M.D.

Clerk—Joseph Kellogg.

ORANGE.

President—John F. Barnett, M.D.

Health Committee—B. B. Savage, Elber J. Treat, John F. Barnett, M.D., Durell Shepard, M.D.

Clerk—Elias T. Main.

OXFORD.

President—James H. Bartlett.

Health Committee—Clark E. Lum, Glover W. Cable, James H. Bartlett.

Clerk—Elijah B. Treat.

PLAINFIELD.

President—

Health Officer—John S. French.

Clerk—

PLAINVILLE.

President—J. N. Edward.

Health Committee—C. W. Moody, M.D., D. W. Fox, J. N. Bull, M.D.

Clerk—T. G. Wright, M.D.

PLYMOUTH.

President—Geo. Langdon.

Health Committee—Byron Tuttle, W. P. Swett, M.D., Asahel M. Johnson.

Clerk—Jason C. Fenn.

POMFRET.

President—Wm. T. Bartholomew.

Health Committee—F. G. Sawtelle, M.D., F. W. Chapin, M.D., A. S. Bruce, Thos. O. Elliott, Horace Sabin.

Clerk—Chas. P. Grosvenor.

PORTLAND.

President—

Health Committee—Jas. Pelton, Oliver Gildersleeve, Geo. B. Cleveland, C. E. Hammond, M.D.

Clerk—C. A. Sears, M.D.

PRESTON.

President—Geo. C. Clark.

Health Officer—

Clerk—Hugh King.

PROSPECT.

President—

Health Officer—Jas. Bottomly.

Clerk—D. M. Plumb.

PUTNAM.

President—Omer LaRue.

Health Officer—J. B. Kent, M.D.

Clerk—Walter P. White.

REDDING.

President—

Health Officer—John H. Benedict, M.D.

Clerk—Wm. E. Duncomb.

RIDGEFIELD.

President—E. W. Keeler.

Health Committee—Wm. S. Todd, M.D., Henry Smith, D. Smith Sholes.

Clerk—Hiram K. Scott.

ROCKY HILL.

President—C. H. Hart.

Health Officer and Clerk—Frank L. Burr.

ROXBURY.

President—

Health Committee—E. G. Seeley, C. E. Prindle, L. J. Pons, M.D., A. W. Baldwin.

Clerk—E. G. Seeley.

SALEM.

President—F. E. Chadwick.

Health Officer—

Clerk—C. F. Congdon, M.D.

SALISBURY.

President—Geo. B. Burnall.

Health Committee—H. M. Burch, M.D., Geo. B. Burrall.

Clerk—W. E. Hicks.

SAYBROOK.

President—John W. Marvin.

Health Committee—Edwin Bidwell, M.D., H. Moody, M.D.

Clerk—Joseph B. Banning.

SCOTLAND.

President and Health Officer—Samuel B. Sprague.
Clerk—Chauncey M. Smith.

SEYMOUR.

President—E. A. Lum.
Health Officer—R. E. Warner, M.D.
Clerk—C. J. Atwater.

SHARON.

President—W. W. Knight, M.D.
Health Committee—Clark M. Juckett, E. M. Winchester, Chas. W. Everitt, E. H. Bartram.
Clerk—Dr. C. W. Bassett.

SHERMAN.

President—
Health Committee—John N. Woodruff, M.D., Nelson T. Hungerford.
Clerk—Chas. E. Joyce.

SIMSBURY.

“I cannot find as we have a Board of Health in this town.”

BENJAMIN H. SELBY, *Town Clerk*.

SOMERS.

President—Kibbe V. Chapin.
Health Committee—Jas. C. Pease, Arnold Converse, Henry C. Shinson.
Clerk—Chas. S. Fuller.

SOUTHBURY.

President—M. L. Cooley, M.D.
Health Committee—D. M. Mitchell, T. F. Wheeler, W. C. Beecher.
Clerk—M. L. Cooley, M.D.

SOUTHINGTON.

President—Wheaton S. Plumb.
Health Officer and Clerk—Jas. H. Osborne, M.D.

SOUTH WINDSOR.

President—Geo. S. Bissell.
Health Committee—S. W. Rockwell, M.D., Seth Vinton, Frederick A. King.
Clerk—J. E. Collins.

SPRAGUE.

President and Health Officer—T. F. Stanton, M.D.
Clerk—Wm. D. Nolan.

STAFFORD.

President—Wm. A. Colburn.
Health Committee—Chas. G. Ellis, Joseph Ferry, Wm. A. King, A. D. Cady, A. J. Turner, John R. Washburn, F. L. Smith, M.D.
Clerk—Jas. Risley.

STAMFORD.

President—

Health Officer—Francis J. Rogers, M.D.

Clerk—

STERLING.

President—David S. Kenyon.

Health Officer—

Clerk—Geo. C. Spooner.

STONINGTON.

President—Geo. W. Tingley.

Health Committee — Robt. Woodburn, Geo. D. Stanton, M.D.,
Frank A. Coats, M. D., Chas. E. Chipman.

Clerk—C. H. Babcock.

STRATFORD.

President—D. C. Wood.

Health Committee — G. F. Lewis, M.D., H. G. B. Cuzner, Eugene
Morehouse, Stiles Judson, Jr.

Clerk—Stiles Judson, Jr.

SUFFIELD.

“None elected.”

WM. L. LOOMIS, *Town Clerk*.

THOMPSON.

President—L. Holbrook, M.D.

Health Committee—L. P. Lameureux, Geo. E. Elliott, Joshua P.
Knight.

Clerk—Oscar Tourtellotte.

THOMASTON.

President—Albert P. Bradstreet.

Health Committee — Ralph S. Goodwin, M.D., Geo. D. Ferguson,
Joseph K. Judson.

Clerk—Frank W. Etheridge.

TOLLAND.

President—Bradley M. Sears.

Health Officer—W. H. Clark, M.D.

Clerk—F. P. Newcomb.

TORRINGTON.

President—Elijah Woodward.

Health Committee — H. J. Pulver, M.D., T. S. Hanchett, M.D.,
Wm. L. Platt, M.D., H. S. Jackson.

Clerk—Willard A. Roraback.

TRUMBULL.

“There has been no organization of the Board of Health in the town
of Trumbull and no officers appointed, the public sentiment not
requiring it.”

SAMUEL G. BEARDSLEY, *Town Clerk*.

UNION.

President—A. E. Weld.

Health Committee—H. B. Booth, J. W. Winch, M. G. Smith.

Clerk—M. H. Kinney.

VERNON.

President—Abraham Laubecher.

Health Officer—

Clerk—W. Frank Fay.

VOLUNTOWN.

President—H. C. Gardiner.

Health Officer—R. C. Young, M.D.

Clerk—J. C. Tanner.

BOROUGH OF WALLINGFORD.

President—Leverett M. Hubbard.

Health Committee—Jas. D. McGaughey, M.D., Henry Davis, M.D.,
Wm. S. Russell, M.D.

Clerk—Othniel I. Martin.

WARREN.

President—Benj. E. Carter.

Health Officer and Clerk—John B. Derrickson, M.D.

WASHINGTON.

President—Gould C. Whittlesey.

Health Committee—Orlando Brown, M.D., Wm. J. Ford, M.D.,
Robt. A. Marcy, M.D.

Clerk—Guy C. Ford.

TOWN OF WATERBURY.

President—John B. Doherty.

Health Officer—C. W. S. Frost, M.D.

Clerk—Jas. C. White.

CITY OF WATERBURY.

President—H. T. Boughton (Mayor).

Health Officer—C. W. S. Frost, M.D.

Clerk—E. G. Kilduff.

Sanitary Inspector—G. B. Lawrence.

WATERFORD.

President—J. Robertson.

Health Officer—Jas. E. Beckwith.

Clerk—

WATERTOWN.

President—C. B. Atwood.

Health Officer—H. T. Dayton.

Clerk—E. B. Lockwood.

WESTBROOK.

President—R. H. Stannard.

Health Officer—T. B. Bloomfield, M.D.

Clerk—C. E. Chapman.

WEST HARTFORD.

President—T. Everett Stanley.

Health Officer—Fred Sumner Smith, M.D.

Clerk—Fred Sumner Smith.

WESTON.

President and Clerk—M. V. B. Rowland.

Health Officer—Frank Gorham, M.D.

WESTPORT.

President—L. B. Sherwood.

Health Officer—L. T. Day, M.D.

Clerk—L. T. Day, M.D.

WETHERSFIELD.

President—E. D. Robbins.

Health Officer—A. S. Warner, M.D.

Clerk—G. H. Chaffee.

WILLINGTON.

President—

Health Officer—Chas. C. Essex.

Clerk—Judson Potter.

WILTON.

President—N. M. Belden.

Health Officer—A. B. Gorham, M.D.

Clerk—H. E. Chichester.

WINCHESTER.

President—Ralph H. Moore.

Health Committee—E. E. Culver, Riley W. Smith, John W. Bidwell, M.D.

Clerk—Geo. W. Carrington.

WINDHAM.

President—J. Griffin Martin.

Health Committee—John D. Wheeler, J. Griffin Martin, Theodore R. Parker, M.D.

Clerk—Geo. A. Conant.

WINDSOR.

President—Henry Phelps.

Health Committee—A. C. Huntington, J. N. Dickson, M.D., Henry Phelps, Newton S. Bell, M.D.

Clerk—Newton S. Bell, M.D.

WINDSOR LOCKS.

President—Simon B. Douglass.

Health Officer—Timothy F. McCarthy.

Clerk—John P. Healy.

WOLCOTT.

President—Rufus Norton.*Health Officer*—Chas. S. Tuttle.*Clerk*—J. R. S. Todd.

WOODBURGE.

President—Theodore R. Baldwin.*Health Officer*—S. C. Hubbell, M.D.*Clerk*—J. W. Barker, M. D.

WOODBURY.

President—W. A. Strong.*Health Committee*—H. W. Shove, M.D., W. A. Strong, M. F. Skelley.

WOODSTOCK.

President—Stephen D. Skinner.*Health Committee*—F. H. Stetson, Wm. B. Lester, H. T. Child, Reed Tourtelotte, C. H. May, Nelson Morse.*Clerk*—Nathan E. Morse.ANNUAL REPORTS OF THE LOCAL BOARDS
OF HEALTH.

There are several good reasons why these reports are not more numerous. The most potent reason is that so many of the Boards are so recently organized that they have done no sanitary work at all as yet, and consequently have nothing important to report.

Conscious of this fact the Secretary omitted any special effort to obtain annual reports from them.

The following reports have been received with others. These are published as examples of the sort of work now being done by the local boards. Another year with the experience which it will bring, will doubtless show an improvement on these.

*Abstracts from Reports of Sanitary Work done by Local
Boards of Health.*

[THE REPORTS ARE ARRANGED IN ALPHABETICAL ORDER,
WITHOUT REGARD TO COUNTIES.]

BERLIN—*R. E. Ensign, M.D., Health Officer, Reporter.*

The Board of Health presents its second annual report with congratulations that the health of the town, as verified by the Registrar's books, shows no deterioration from the preceding year.

The duties of the Health Officer the past year have been light,

limited to a few visits of inspection, some to remove nuisances, and some at the request of owners to see if their premises were in good sanitary condition, which shows among some an appreciation of the fact that "prevention is better than cure." If the time ever comes that all people know that a great proportion of disease is caused by the pollution of drinking water, poor drainage, uncleanness and ill-ventilation and adulteration of food, all of which are preventable, then the physician's "occupation," like Othello's, "is gone."

It is almost incredible what small causes, by their persistency, will do to sap the springs of health, exemplifying the teaching that we must "despise not the day of small things if we would preserve life, health and happiness.

BRISTOL—*John Winslow, Jr.*, Reporter.

The number of cases attended to by Dr. Hull and myself as health committee during the past year was thirty-eight, as follows: For defective drainage, that is, where the sink drain emptied on the surface of the ground and collected in one or more pools of stagnant water on the premises, twenty. For nuisances caused by privies, hog-pens, and accumulations of refuse matter, sixteen. For filthy houses, two. Culminating in one instance (Newman's), in the breaking out of malignant diphtheria, resulting the death of four members of the family in one week. In all of these cases the cause of complaint has been removed. The drainage has been carried beneath the surface of the ground into cess-pools, or into running brooks where practicable, privies and hog-pens have been cleaned and steps taken to prevent, as far as possible, a repetition of the offense.

HAMDEN—*Edwin D. Swift, M.D., Michael Farrell, Health Committee*, Reporters.

Your committee would respectfully report that we have endeavored to respond promptly to all calls for our services throughout the town; that the hot weather of July and August with the accompanying humidity of the atmosphere have made such calls somewhat numerous; but we are happy to report that in nearly all cases when the owners or occupiers of such premises have been informed of the unsanitary condition thereof, they have very promptly done what they could to remove or thoroughly cover up such filth and deodorize the location.

We would call attention to the introduction and use of soured garbage, especially in localities somewhat thickly settled, as being prejudicial to the growth and prosperity of such localities, and would express the desire that some means may be devised by which the introduction and use of such garbage may be prevented.

No epidemic has prevailed to reduce our numbers.

Malarial diseases, though occasionally found, are believed to be less frequent and of milder form than heretofore.

An unusually extensive, though mild form of influenza has prevailed in nearly every portion of our town since about the middle of last August.

LISBON—*W. T. Browne, M.D., Clerk, Reporter.*

During last year there was no meeting of the Board of Health, other than for organization and no business was done as a Board, and no report presented, no publications.

P. S.—We will get into line after a while ; I hope you will not lose patience with us. You must be sorely tried at times.

JEWETT CITY—*Geo. H. Jennings, Reporter.*

During the year but little has been done by the Board. When I received notice from you of the case of small-pox existing in Greenville, I sent a letter to each factory in our town, notifying them of the case and strongly urging vaccination among their help. I also enclosed to each a pamphlet on Sanitary Measures that I had received from you. Two of the corporations noticed the appeal by saying that they would do as the rest did. One personally was opposed to vaccination, but was willing to coöperate if it could be brought about amicably. There is a great indifference here to the subject. I do not suppose that among the school children twenty per cent. have ever been vaccinated. Among adults it is much better, but a large percentage are unprotected. I do not see how to move in the matter. The Board of Health here is opposed to compulsion, the people are indifferent. Perhaps in time we can persuade the people into it. Once get the thing done and then it soon would grow into the custom, and there would not be much danger of properly caring for those that would come in later.

The subject of drainage is often presented to the authorities and urged on the people as opportunity offers, but there remains much to be done in that direction. Fortunately we have been free from typhoid fever, and had less of diphtheria and scarlet fever than usual.

We still hope for better things.

MONTVILLE—*J. R. Gay, Clerk, Reporter.*

The Board of Health of the town of Montville met on the 5th inst., and reorganized. There was no sanitary work done through our local Board last year.

MYSTIC RIVER—*Fred. H. Brewer, Clerk Board of Health, Town of Groton, Reporter.*

The Report to the Selectmen and Town Meeting this year past was only a verbal one, to the effect that all complaints in all parts of the town had been properly attended to, and related to small nuisances entirely. Another year a more complete report will be made. In our country towns so much opposition exists to our action, that the position as a member of the Board is far from being desirable. We have now a few cases of typhoid fever, some of them have proved fatal. Any circulars or publications will be thankfully received.

NEW HAVEN.—*C. A. Lindsley, M.D., Health Officer, Reporter.*

The New Haven Board of Health holds weekly meetings during half the year, including the summer months, and monthly meetings in the remaining half—with frequent special meetings when occasion requires.

Its officers are a President, a Health Officer and a Clerk. The last two receive a salary. The Board also employed through the year three sanitary inspectors. These were occupied during the summer months very constantly in investigating the complaints of local nuisances, which citizens daily address to the Board. And at times when not so occupied, they were engaged in making a systematic Sanitary survey of the city, in such a manner as to put on record the present Sanitary condition of every piece of property within the city limits. This survey has been completed during the past year.

The Board have published almost from the time of its organization a monthly statement of the mortality of the town and the causes of death, with various additional items of interest.

The Board has been very much restricted in the legitimate exercise of its proper functions, from the absence of such Sanitary ordinances as are in force in most other cities. Even so obvious a necessity as requiring the report to the Board of the occurrence of small-pox is ignored in New Haven, and the Board has to learn of the existence of infectious diseases as best it can, and to take what steps it may to protect the public from their spread, without the aid of much direct sanitary law to assist them.

The Board can incur no expense whatever, on its own authority, for the protection of the public against infectious diseases, not even to the extent of vaccinating a family in a house where small-pox has broken out.

The explanation of this most remarkable anomaly, is that all sanitary ordinances must be enacted by the Court of Common Council. Efforts have been made for years to obtain a more satisfactory condition of the health laws, without much result. There are now and have been for many months before the Committee on Ordinances on the part of the Common Council a sanitary code of health regulations, submitted by the Board of Health, similar to such as are in force in most of the cities of Connecticut, but they fail thus far to obtain any recommendation from that body.

Laboring under such difficulties and still further hampered by parsimonious appropriations for important sanitary work, the Board have notwithstanding accomplished many reforms and been the means of elevating the standard of public hygiene in New Haven fully to the level of that of other cities of its size. Such results have been brought about more by moral suasion than by the exercise of any mandatory authority. In no one direction has more been accomplished than in the effect of house to house visitation by the sanitary inspectors. They have had innumerable occasions to point out to citizens certain local unsanitary conditions, not before suspected, and at the same time to suggest the means of abatement. In most cases their advice has been adopted, without any action on the part of the Board.

There have been built during the year over 3 miles of sewers, in 24 different streets, and there is now in construction a large

intercepting sewer, which when completed will afford the means of sewerage a large territory of the western side of the city. One thousand seven hundred and twenty catch-basins have been cleaned during the year, and fifty-seven basins built.

A total area of 4,485 sq. yds. of regular pavements have been laid during the year. And the total length of streets paved and streets hardened during the year was $25\frac{1}{2}$ miles.

A cleanly condition of the streets has been maintained throughout the year, which is a point of much importance to health in cities and has no doubt been an element in preserving the health of New Haven.

NORWICH—*David Young, Pres. of Health Com., Reporter.*

The Health Committee of the town of Norwich have had but little to do during the past year. There has been one case of small-pox which was reported to you in the time of it. Prompt action on the part of the Committee prevented its spread, and the patient survived the attack. There have been a few complaints of nuisances, but taking with me a physician, a member of the Committee, we visited the places complained of and had no difficulty in having the nuisances complained of abated without further action. We have a town Health Committee and a city; the town committee do not act in the limits of the city without the cause of complaint seems to call for such action. We believe the town and city were never in a better condition than this present time, as our death rate will give evidence.

PLAINVILLE—*Theodore G. Wright, M.D., Clerk, Reporter.*

I am reminded by a circular letter from you that a copy of the Annual Report of the Plainville Board of Health must be forwarded to the State Board of Health and in response to this call present the following:

During the year ending October 1st, 1887, only three complaints have been made to this board. These complaints were referred to the Health Committee and were attended to by them.

PLYMOUTH—*J. C. Fenn, Clerk, Reporter.*

As regards report of this town's Board of Health, made at our annual town meeting, would say the report was not in writing,

it being repeated by the clerk of the Board as it occurred to him, from a few notes he had with him, and therefore I am unable to give it verbatim.

It stated as to the organizing and subsequent meeting, at which time it was voted to send out printed notices and a copy was held up to the meeting; also stated that one sink hole had been ordered filled and one hog-pen removed.

Also how some stir was made about children that came one day from Bristol to a friend's, from which a child had died of diphtheria, and that they took the children back home, the father declaring there was no fear of the children giving it, saying they were all right; result showing we were in the right, as one of the children died the next morning.

Another year I hope to be able to give you a more full report.

SOUTHINGTON—*Jas. H. Osborne, M.D., Clerk Board of Health, Reporter.*

Aside from the usual routine of business and looking after complaints made by one neighbor against another, the Board of Health in Southington in 1886-87 accomplished nothing. As Health Officer, I find it difficult under the meager State laws to accomplish much by driving and have adopted the coaxing method, if you may allow me to so call it.

If it will be of any interest to you I will send from time to time a brief résumé of the diseases which are prevalent here.

THOMPSONVILLE—*Fred. E. Ely, Clerk, Reporter.*

As the Board of Health for Enfield did no business during the year '86-87, the chairman did not report to the town meeting. As soon as I have the rules and regulations governing the present Board printed, I will send you a copy.

WASHINGTON—*Guy C. Ford, Clerk of Board of Health, Reporter.*

The truth is that, until the past year, very little attention has been paid to the Board of Health, and for thirty years last past the time during which I have been a continuous member of the Board, it has been organized but twice before. In both instances its action was firm and decisive, and accomplished the object for

which it was convened. The first time it met was to face the small-pox, which had obtained a firm foothold in our very midst. An Irish family living near a main road and less than a half mile from the village of Washington, imported it from New York, where one of the sons had died from it, bringing his clothing home with the mother who had been nursing him and putting the dead boy's clothing upon one of the other children. The boy came down with small-pox and they kept him shut in a bedroom for two weeks without medical aid, while people came into the house as usual. Finally the old man and his wife had a quarrel, and as fortune favored, one of our physicians passed the house in the hottest of the fight, when the old man in revenge rushed out and told him all about it. He went in and found a very severe case of confluent small-pox, which nearly cost the boy his life and fearfully disfigured him. The doctor at once notified the Board of Health, and although living six or eight miles apart, met before eight o'clock that evening, and adopted at once the most stringent measures, quarantining those who had been exposed and instituted a wholesale vaccination, and the result was we stamped the thing out, and only the one case that already existed occurred.

The second time was regarding some cases of scarlet fever, when we gave a Health Committee power to quarantine and we thus prevented its spread.

Thus, while we never organized except in cases of need, still if occasion arose we were ready to act, and did act promptly and effectually. Of late years we have had very few contagious diseases except mumps and measles. I think pneumonia has been the most fatal disease with us for the past twelve or fifteen years. It seemed at times to be almost epidemic. I suppose it would be called by you doctors epidemic. We are as a whole a very healthy town, even scarlet fever of late years has been very light. I have written thus at length to show you what our former habits have been as regarding our health officers. I am glad of the stringency of the statute upon this matter, and will try to obey it most willingly.

AN OUTBREAK OF DYSENTERY IN THE STATE PRISON AT
WETHERSFIELD.

The Hon. Francis Wayland, President of the Board of Directors of the State Prison, in consideration of the occurrence of numerous cases of intestinal disease among the prisoners in mid-summer, requested the Secretary, as an officer of the State Board of Health, to visit the prison to investigate the sanitary condition of the premises, to find, if possible, any local cause for the unusual sickness.

The following report was immediately thereafter made to President Wayland:

To the HON. F. WAYLAND, Pres. of Board of Directors of the Conn. State Prison :

SIR—In compliance with your request I visited on Tuesday, July 26th, the Conn. State Prison. I was accompanied by Dr. R. S. Goodwin, also a member of the State Board of Health, from Thomaston. With the statements and recommendations in the following report he fully concurs. It may therefore be considered our joint report.

Very respectfully,

C. A. LINDSLEY, M.D.

REPORT.

It is quite unnecessary to mention in detail the general unsanitary conditions of the prison, or to describe the many defects, for Hospital purposes, of the apartments devoted to that use.

All these conditions have existed without any essential change for many years, and you are fully familiar with them.

Our attention was more particularly given to discover, if possible, any special conditions which would explain the present outbreak of dysentery and diarrhoeal disorders now so prevalent in the prison; and also to consider if we could make any suggestions, which were practical, to improve the present sanitation of the place.

We were informed by Dr. Warner, the prison physician, and Gen. Chamberlain, the warden, that the first case of dysentery occurred about the first of this month; that on the 4th day of July, the prisoners received as a part of their rations, fresh pork and that on the 6th, forty-six prisoners came down with diarrhoea, many cases terminating in well-defined dysentery. At the time of our visit there were 24 cases in Hospital, 13 of which had dysentery and 11 were otherwise sick; besides these. Dr. Warner said he had 38 others under treatment mostly for intestinal troubles, making in all 62 patients in a community of 275. This is a large ratio and in any population would constitute a formidable epidemic. Moreover, it indicates some special morbid agency which for the time being is exceptionally energetic or active.

Although as an etiological question the matter is still in debate, the weight of opinion among the best observers is, that dysentery is an infectious disease, and that the specific cause is a living organism, a special germ, but that it is most active as a disease producer under special conditions. In times past, history abundantly testifies to its destructive ravages as an epidemic both in municipal and rural communities, but its most fearful manifestations have been observed under the peculiar conditions of camp life. When an epidemic of it occurs under such circumstances, experience has taught that one of the most successful means of relief, is to break camp and remove to new quarters. By common consent the advantage is attributed to abandoning a place which is so intensely charged with the infection that it is easier to leave the place than to eradicate the poison it contains.

In camp life, too, the accumulated filth about the camp due to the habits of soldiers, and especially the *latrines*, are believed to be most largely the sources of infection. And from these as centers of infection the whole place becomes infected, therefore, leave the place, break camp, and march, is the order. In nothing is the difference between a camp and a state prison more marked than in the fact that one is migratory and the other is a permanent fixture: in many other particulars they are much alike. You must deal with conditions where you are, you cannot run away from them. But, nevertheless, the camp experience is instructive. Filth, and especially the *latrines* are centers of infection. From time immemorial it has been believed that the excreta of dysenteric patients contain the contagious principles. And now the teaching is that these principles are *contagia viva* capable of self-propagation under suitable conditions. All depressing influences favor their baneful effect upon human health, but especially such as disorder digestion, or irritate the intestinal canal. Hence, excessive heat, a foul atmosphere, fatigue or exhaustion, confinement in ill-ventilated apartments, and especially improper food, or drink. We learned also from the officials at the prison, that for many years previous to last summer dysentery was unknown in the prison.

The enemy, therefore, is a recent intruder, but he has got possession, and although dormant through the winter, he has rallied again and with reinforcements this summer. He has, perhaps, taken advantage of some error of diet and made a forcible assault. It was learned that fresh pork was a part of the rations of the prisoners. This is a better diet for the winter season, but in July, with the thermometer striving for the nineties, it is not so safe, especially when there is an enemy in ambush.

It is something to know, if we do not know it, that the enemy is a *contagium vivum*. Safety is only found in making him a *contagium mortuum*. Kill him. You can do but little in defensive warfare—you must assume the offensive, and with energy. Attack him where he lives. If the *latrines* are his stronghold in camp, it will be the buckets in the prison. But as the *latrines* contaminate surrounding objects in camp, so will the buckets contaminate the walls, the floors, and the

bedding of the cells. Half-way measures will do no good. You must fight energetically, persistently, and to the utter extermination of the foe, that none of his seed be left. Your *armamentaria* will consist of the germicides, the disinfectants.

We were informed that the practice is to empty the buckets in the morning, rinse them in cold water and then return them to the cells. The peculiar aroma they distill from their surfaces is scarcely diminished by such a process, as our olfactories can testify. The bacteriologists would find the moisture scraped from their sides alive with the same bacteria that infest the excretal discharges of the patients. This is their breeding place; the buckets must be so treated as to destroy all organic life in or upon them.

RECOMMENDATIONS.

We would recommend that a tank be provided of sufficient capacity to hold a solution of corrosive sublimate for the immersion of all the buckets used in the prison, for at least an hour every day. It is not enough to wet them with the solution inside; they should be wholly immersed, so that every part of them shall be under the solution, for that time daily, after they have been emptied and rinsed. The solution should be of the strength of one part of corros. sublimate to 500 parts of water.

Every vestige of the bedding in the prison should be boiled for an hour. The walls should be washed with a white-wash brush, with a similar solution of the sublimate, and when dry white-washed with lime. The floors should also receive a bath of the same.

Gen. Chamberlain suggested, when we were lamenting the deficiencies of the hospital, that if it was thought necessary, the present chapel might be temporarily utilized for a hospital.

We visited it and unhesitatingly expressed our opinion that the moral effect of such a change would be better than preaching. We therefore most earnestly advise it.

DIET.

The table of rations as published in the Annual Report presents a good, wholesome, and nutritious diet for healthy adults, for which it is intended.

We did not learn that it had been observed that any aggravation of the diarrhoeas had been traced to rations of any particular day. Careful attention might detect some such influences.

We were in doubt whether molasses was not hurtful under such circumstances. Beans are of acknowledged value for their highly nutritive powers; but the skin of beans is indigestible, and is said to defy the digestive power of the strongest stomachs, and pass unchanged in the fæces.

The late Surg.-Gen. Woodward, in the Medical History of the Rebellion, says that they were often known to aggravate dysentery and advised that the skins be always separated, by straining, from the interior portions.

Milk is not mentioned in the table of rations, but we were informed that it was supplied to prisoners, but always in the form of skimmed milk. We will risk the opinion that it would be better if not skimmed.

THE PRISONERS.

During the heated term and particularly while there is so much sickness in the prison, we would suggest that attention be given to such prisoners as are weakly or convalescing, and that their strength be not overtaxed at their tasks. That if it were practicable it would be well to give them all a little more time than they have heretofore had in the open air, that they may have the benefit of its tonic effect. But we do not know that this can be done.

All of which is respectfully submitted.

C. A. LINDSLEY, M.D.

R. S. GOODWIN, M.D.

INSPECTION OF CAMP LOUNSBURY.

During the encampment of the Connecticut National Guard on the State military grounds at Niantic, I was invited by Surg.-Gen. Fox to make an official sanitary inspection of the camp, called in honor of the Governor, Camp Lounsbury.

I accepted the invitation and visited the camp on the 25th of August. Every facility was afforded for making a full and satisfactory examination.

My inspection was directed chiefly to the source and character of the water supply, the methods of caring for the *latrines*, the disposal of the garbage, the management of the kitchens, condition of the grounds as regards drainage, and cleanliness, and the degree of protection afforded by the tents.

The water supply is from driven wells, located conveniently in various parts of the camp. These are so far remote from any sources of contamination as to preclude the possibility of danger from such causes. The quality of the water seemed from the appearance and taste to be unexceptionable. No other tests were applied. So far as I could learn it was regarded as good and no evil effects were attributed to its use.

The *latrines* were located on the outskirts of the camp, in the rear of the mess-quarters and far enough away, with the care which was given them, to be in no degree offensive. The plan of construction was very simple, and yet admirably adapted to afford the greatest facility for disinfecting the excreta. For each regiment there was erected a long wooden building decently con-

trived in the interior for the convenience of the men, so that the excrement would fall into a trench beneath the seats, which trench was only partially covered by the building, being exposed in the rear of the building sufficiently for the easy application of disinfectants and for removal.

A strong solution of copperas was thrown several times a day into the trench, and the contents were then covered with a layer of earth, so that the usual odors from such places were entirely suppressed. At the close of the encampment, the practice has been and will be, I was informed, to remove the entire contents of these trenches and make from them a compost, which in proper time is used upon the grounds as a fertilizer.

The subsistence of the troops is not furnished directly by the State, but every man provides his own rations; the custom is, for companies or regiments to contract with caterers at an agreed price per head. A great improvement in the management of the kitchens and the disposal of the vast amount of garbage was observed, as compared with previous years.

This was in large measure due to the following very practical and judicious instructions which were issued to the caterers at the beginning of the encampment.

CAMP LOUNSBURY, Niantic, August 22, 1887.

Instruction to Caterers.

You are hereby directed during your tour of duty at Camp Lounsbury, to pay particular attention to cleanliness in and about your camp kitchens; to see by personal attention that they are cleanly *at all times*, as you will be held responsible for any accumulations of filth. Sufficient receptacles will be provided to contain all kinds of refuse, and you will require your employees to deposit in them *all* such refuse, *liquid* and *solid*, that nothing of that nature be thrown on the ground, as has been too commonly practiced in former camps.

Frequent inspections will be made to see that this order is obeyed, and for the purpose of knowing such caterers as are incompetent.

By order

Surg. Gen'l C. J. FOX.

(OFFICIAL.)

C. PURDY LINDSLEY,

Lt. Col. and Med. Director C. N. G.

In addition to the above, orders were issued to the regimental surgeons, to make frequent daily inspections to see that the above orders were obeyed.

The garbage was constantly removed as fast as the barrels were filled, and emptied into trenches dug upon the extreme limits of the camp grounds. These were daily covered with fresh earth, and at a later period the contents are to be removed and added to the compost heap. These measures appeared to be faithfully carried out, and on the day of my inspection thoroughly effective in preventing any evil or even disagreeable consequences from the great amount of excrementitious and other refuse incident to the gathering of so many men.

The camp ground is an almost level plain, bordered on the east by an arm of the sea, setting up from Long Island Sound, which is but about one-third of a mile to the south. It is a dry porous soil covered with a fine turf, and admirably adapted for a military camp.

The tents for the privates were of the "A" pattern. They were made of good material and in good repair. They were all provided with wooden floors, so that the men were protected from the exposure of lying upon the ground. But they were too small or too few to satisfactorily supply the demand upon them. In bad weather, necessitating their being tightly closed, the air in them soon became oppressive when occupied by four men. It would add greatly to the comfort and health of the soldiers, if wall tents with their greater air space could be substituted for these.

Another point was noticed, the tents were not provided with flies and the first half of the week tested their weather-proof qualities beyond their powers. Monday, Tuesday and part of Wednesday were rainy days, not merely rainy, but very rainy, it rained almost constantly and sometimes it rained exceedingly fast. At the signal station in New Haven, the fall was 1.89 inches. The single sheet of canvas between the soldier boys and the outpouring from the heavens did not prove sufficient, and after a thorough wetting on guard duty or at drill, they found but little shelter or comfort in their tents. But notwithstanding this most unusual exposure to which few if any were habituated, there was very little sickness. There were more than 2300 men in camp, including officers and the highest number reported on the sick-list on any one day was 29, the lowest 13. The character of the sickness was for the most part trivial: colds, colic, cholera-morbus, and diarrhœa, constituted the larger number, and these were reasonably to be expected from the abrupt

changes of habit, diet, etc. They were for the most part of short duration. On no day were there more than two in hospital. Several cases were slight casualties, such as "cut on hand," "sprained knee," and the like.

This remarkable exemption from illness was without question largely to be attributed to the supply of good water, the precautions taken against the pollution of the atmosphere about the camp and the supply of wholesome food.

The hygienic administration of Camp Lounsbury was deserving of commendation.

INSPECTION OF THE NEWLY ERECTED BUILDINGS FOR THE STATE PRISON AT WETHERSFIELD.

The following communication from the Commissioners explains itself:

Hartford, Conn., Oct. 28, 1887.

Prof. C. A. LINDSLEY, New Haven :

Dear Doctor—The additions and alterations at the State Prison have progressed so far that the Commissioners are of the opinion that it will be in the interest of the State and a pleasure to themselves to meet you and submit several matters to you for such suggestions and advice as you may think proper to give relating to warming, ventilating, water supply, and the sewerage especially, and will be glad to meet you any day next week that may best suit your convenience.

Please to give us one day's notice in advance, also the train on which we may expect you, and I will meet you at the station and take you down to the prison.

I remain as ever, yours very truly.

E. K. HUNT.

In response to the above invitation the Secretary notified Dr. Hunt that he would meet him in Hartford on the 2d of November, with Prof. Brewer, a member of the State Board whom he had asked to accompany him.

In accordance with that engagement, Messrs. Hunt and Bronson, Commissioners, and Brewer and Lindsley, of the State Board of Health, proceeded together from Hartford to the prison and made a careful inspection, and the two latter gentlemen subsequently sent the following report of their visit to the Prison Commissioners.

REPORT.

New Haven, Conn., Nov. 4, 1887.

Messrs. HUNT AND BRONSON:

We visited, in your company on Nov. 2d, 1887, the new State Prison building in course of erection, examined the changes in the yard, and have looked over the sketches of changes to be made in the old cell building. We highly commend the general plan as to sanitary arrangements, and also the detail, if we rightly understand the plans. There are some few details however, about which we are not entirely certain as to what the plans really are; and we will therefore, in those cases, express our opinion as to what we think they should be.

1st. As to the size of the traps and pipes of the water-closets of the cells, we think the main waste-pipes, into which the traps of the closets are separately ventilated, should be at least one and a half inches in diameter and better two inches, and certainly two inches at least if there are to be bends in these pipes.

2d. The flushing of the closets should be such as to prevent the adhesion of the filth to the bowls.

3d. As to the hospital, for contagious diseases, we think it essential that the entrance should be separate, or at least so that physician and attendants can reach the room without passing through the clothes room, or any room occupied by other prisoners. As to the general plan of the changes to be made in the old cell building, we consider it excellent.

Yours respectfully,

W. H. BREWER.

C. A. LINDSLE.

PAPERS CONTRIBUTED TO THE REPORT.

While these are not so numerous as in some previous reports, they will not be found less instructive. Besides the able and important paper on the Pollution of Streams by Prof. Williston, there are several valuable contributions to epidemiological literature. One by Dr. R. S. Goodwin, a member of the Board which is of great local interest, being an account of an epidemic of Dysentery in Thomaston and vicinity; another of like value, being a Sanitary Report for the City of Waterbury, by Dr. C. W. S. Frost, Health Officer of that city. Also a study of a recent outbreak of Typhoid Fever at Southampton, L. I., by Prof. F. E. Beckwith of New Haven. Although this epidemic did not occur within the limits of the State, it is none the less instructive as illustrating the methods by which such outbreaks take place, and the high importance which attaches to the careful protection of well water from defilement, by the leachings of cess-pools and privy vaults. Indeed the Southampton outbreak

as described by Dr. Beckwith adds another to the many demonstrations of the danger which constantly menaces the health of all who live in near proximity to such vile and abominable filth pits.

There is also an able paper on the sewerage of Bridgeport by Dr. Young of that city. Aside from its local interest as affecting the welfare and prosperity of one of the most ambitious and growing cities in the State, it is also of value to the intelligent residents of other cities, as presenting the general principles of good sewerage and its relations to the public health.

REPORTS OF DELEGATES

TO THE

NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH,

September 7, 1887,

AND TO THE

AMERICAN PUBLIC HEALTH ASSOCIATION,

November 8 to 11, 1887.

REPORT OF DOCTORS LINDSLEY AND GOODWIN DELEGATES TO THE NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH.

The fourth Annual Conference of State and Provincial Boards of Health was held in the parlors of Willard's Hotel, Washington, D. C., Sept. 7, 1887.

The meeting was called at this time and place because the International Medical Congress would be in session at the same time in Washington, and in the opinion of many, a larger gathering of those interested in the Conference would be thereby secured, than at another time or place.

The result was not so satisfactory as expected. "The Conference" was rather overshadowed by the larger "International Medical Congress," and the lesson learned seemed to be that if the National Conference of State Boards of Health had not vitality enough for an independent existence, it would scarcely ever attain a very vigorous growth, as a parasite of some other organization. The next meeting will be held at Cincinnati at a time when no other large body will detract the interest of its members.

The meeting at Washington was, however, notwithstanding the absence or scant attendance of some who have usually attended, a very interesting and successful meeting.

The first day was largely taken up in comparing the views of members on the subject of Inter-State Notification of Infectious Diseases.

While the general principles on which the practice is based, were unanimously approved and the great advantage derived from it in arresting the spread of infectious diseases was conceded by all, there was found to be considerable diversity of opinion as to the extent to which notification should be carried and also as to the special infectious diseases which most demanded notification.

After a free expression of opinion, the whole subject was referred back to the Committee on Notification of Infectious Diseases, which was given power to add to its numbers.

The committee made the following report at the adjourned meeting.

Resolved, 1 That the Conference reaffirms the principles contained in the resolutions adopted by it at its meeting in Toronto, in 1886.

2. That the communicable diseases hereinafter mentioned, prevalent in certain areas or which tend to spread along certain lines of travel, be reported to all State and Provincial Boards within said area or along said lines of communication.

3. That in the instance of small-pox, cholera, yellow fever and typhus fever, reports be at once forwarded, either by mail or telegraph, as the urgency of the case may demand; and further, that in the instance of diphtheria, scarlatina, typhoid fever, anthrax or glanders, weekly reports, when possible, be supplied, in which shall be indicated, as far as known, the places implicated and the degree of prevalence.

All of which is respectfully submitted.

PETER H. BRYCE,	} Committee.
HENRY B. BAKER,	
J. BERRIEN LINDSLEY,	
BENJ. LEE,	
J. T. REEVE,	
E. M. HUNT.	}

On the second day of the Conference the first business taken up was the consideration of the following questions:

1. Does your State Board of Health receive from every part of its State prompt notification of the occurrence of diphtheria, scarlet fever, typhoid fever and small-pox.

2. If such prompt notification is received, does your State send an expert to each locality where a case occurs?

3. Just what is done by your State Board on receiving a notice of diphtheria, scarlet fever, typhoid fever or small-pox.

As the replies to these questions were called for by States in their alphabetical order, it fell to Connecticut to make the first response and Dr. Lindsley spoke as follows:—

In order to appreciate properly the answers which Connecticut is obliged to give to such questions, it is necessary to understand the relation of the State Board of Health to the people of her commonwealth and to the local boards of the State. The State Board is only an advisory board. It has no mandatory powers. As a Board of Health, its functions lie chiefly in the line of investigations of the causes of disease, and especially of epidemics when they may prevail; in giving counsel and moral support to local boards in their efforts to improve the sanitary condition of towns and in striving to awaken an interest in sanitary science, and diffuse a knowledge of the principles of public hygiene among the people.

In addition to this, the State Board is charged with the superintendence of the registration and compilation of the vital statistics of the State.

This latter duty consumes not only a large part of the time of the Secretary of the board, but also a greater part of the appropriation made by the State for its expenses.

In view of these facts, the reply to the first question must necessarily be in the negative.

The State Board does not receive prompt notification of the occurrence of the diseases mentioned from each locality. It will be readily understood that if the communication of such information is a voluntary matter, a prompt and general practice of giving it is not to be expected.

The answer to the second question is implied in that of the first. But I am ready to affirm that if notification of those diseases were made to the Board an expert would not be sent, certainly not to each locality where a case occurred. I desire to ask my friend, Dr. Baker, the Secretary of the State Board of Michigan, if, upon being notified of a case of typhoid fever in Detroit, he would think it necessary to send an expert there to take charge of it. In the towns of Connecticut, I should fear the resident physicians would resent such a proceeding as unwarrantable impertinence, and one not to be thought of except under very extraordinary circumstances. Besides this, even in the small State of

Connecticut, without the prevalence of any severe epidemic, the cases of these diseases are numerous enough, all the time, to give active employment to a pretty large body of experts, if one was sent to each case.

It does not appear to me to be possible that any State Board can give an affirmative answer to that question.

To the third question, the Connecticut State Board can answer, that while it does not receive prompt notification of all cases of these diseases, it does frequently receive, through various channels, information of any unusual prevalence of them.

That the State Board has published and keeps on hand a supply of circulars relating to the prevention and restriction of each of these diseases, and whenever informed of an outbreak in any locality, immediately sends to the informant, or to the local Health Board, an ample supply of such circulars for distribution.

And further : if anything is known which would seem to demand it, or if requested, the Secretary of the Board personally visits the locality, investigates the sanitary conditions, and offers the best advice he can.

Dr. Baker, Secretary of the State Board of Michigan, replying to the first question, said, it was always a question of time and training of local boards to obtain prompt notice of the occurrence of small-pox, scarlet fever, and diphtheria. He did not yet receive them from all parts of his State, but the promptness and completeness of such reports were continually improving.

He did not try to send an expert to every locality where these diseases occurred. But he believed most emphatically in the distribution of documents giving careful and definite instructions in regard to the prevention and restriction of these diseases, and claimed "that statistics of sickness and deaths in Michigan in 1886, collected since the last meeting of this Conference, conclusively show that there was a large saving of life and health in Michigan in the year 1886 from scarlet fever, and especially from diphtheria, in certain localities where the directions contained in the pamphlets sent and distributed in these localities were carried into effect. This great saving of life and health was, he believed, in a considerable degree, due to the distribution of documents to the neighbors of persons sick as well as to the Health Officers."

He illustrated this by a simple diagram, which exhibited the results of the action of the health authorities throughout the State during the year relative to the spread of diphtheria. It showed that

in the 461 outbreaks the average number of cases was 6.69 and the deaths 1.42 to each outbreak; that in the 116 outbreaks in which isolation and disinfection were enforced the averages were: Cases, 2.86; deaths, .66, while in the 102 outbreaks in which either isolation or disinfection was neglected the cases and the deaths were about five times as many, namely: Cases, 16.18; deaths, 3.23. A similar diagram shows the results of action to restrict scarlet fever. The differences, however, are not so great as in diphtheria.

The representatives of other States in like manner expressed their confidence in the good results of this supervision of the State Boards in all cases of outbreaks of infectious diseases—but many deplored the defects in their state laws, which did not secure prompt and reliable information regarding such outbreaks.

The practice of most the State Boards was the same as that of Connecticut, viz: to send circulars to the local health authorities, and in most cases to depend upon them, but in exceptional cases, the Secretary or a committee of the State Board visited personally the affected locality.

Another question which excited a good deal of interest in the Conference was the following:—What are the best methods of securing Sanitary Legislation? This elicited a good deal of interesting discussion, and the suggestion of various methods by which Legislatures might be influenced to give to the requirements of public sanitation that consideration and action which its importance demands.

Other subjects of practical interest were discussed and after a session of two days, fully and profitably occupied in a mutual interchange of views on topics directly connected with active sanitary work, the meeting adjourned to meet in Cincinnati, Ohio, on the Friday evening preceding the meeting of the American Medical Association in May, 1888.

The following officers were chosen for the ensuing year: For President, Dr. J. N. McCormack, of Ky.; for Secretary, Dr. C. A. Lindsley, of Conn.

REPORTS OF DELEGATES TO THE AMERICAN PUBLIC HEALTH ASSOCIATION, IN CONVENTION
AT MEMPHIS, TENN., NOV. 8TH TO 11TH, 1887.

BY THE DELEGATES,

PROF. WM. H. BREWER, DR. R. S. GOODWIN, AND DR. C. A. LINDSLEY.

REPORT ON THE VALUE OF PUBLIC SANITATION AS EX-
EMPLIFIED IN THE EXPERIENCE OF MEMPHIS.

By PROF. BREWER.

There was an especial fitness in holding an Annual Meeting of the American Public Health Association at Memphis because that place is an impressive illustration of the old aphorism that "Public Health is Public Wealth."

All cities that have vital statistics illustrate the relation between public sanitary practice and the general health as indicated by the death rate. But nowhere else in the country, if indeed in the whole world, is there a more impressive and obvious example of the direct relation between the public sanitary administration of a city and its material and commercial prosperity, than the city of Memphis affords. Down to 1880 or '81, its importance as a centre of trade and business activity was not great; it enjoyed as a whole, but a moderate degree of prosperity. Its natural location and position gave it especially good commercial advantages, but these were offset by a bad sanitary condition. Its city officials and the business men who were interested in its welfare and directed its affairs tried in various ways (other than by effective sanitation) to advance its interests and stimulate its growth, and a considerable public debt was contracted to this end. But no amount of "public works" will bring prosperity and keep it unless the public works include a due proportion directed to public sanitation. This is a great economic law of the present age, but the Memphis officials did not obey it.

As business is now conducted, in the intense and wide competition made possible by railroads, steam, electricity and modern business methods, no unhealthy city can satisfactorily compete with a healthy rival any more than a workman weakened by frequent illness can compete with a healthy and robust one.

Memphis was an unhealthy city, notoriously so. Unsewered, undrained, streets illy cleaned, its soil honey-combed with cesspools and privy-pits, many of the latter of great depth, twenty, thirty, even forty feet deep, this extraordinary depth being given so that the busy people need not be often troubled with the cleaning of them out. It was said that some of these pits had the accumulations of half a century, and were yet not full! These conditions made a high death rate, on ordinary years twice as large as it should be, and at times destructive epidemics swept the place. The high death rate rather than the public debt was the real burden under which the city struggled.

Such was its condition when the yellow fever struck it in 1878. Great as was that calamity the lesson was not learned. As "Yellow Jack" disappeared with the frosts of autumn, "business" crept back and struggled in the old way to regain its place on the street and levee. But the ever vigilant enemy had not been conquered, he had not even been attacked in earnest. His strongholds remained in the dirty streets and in the abounding cesspools and privy-pits, in whose depths he found winter quarters, ready to come forth and grow and spread with the heat of the next summer; when the yellow fever again desolated the city. The pestilence of 1879 was even more disastrous than that of the previous year.

Many of the inhabitants fled, a dreadful percentage of those who remained, died. During the height of the pestilence all business came to a stop except that of caring for the sick and digging graves for the dead. Some help came from other places and the hungry poor had government rations issued to them.

The disease raged at various other places and the damage done to the business and commerce of the West and South was reckoned by the hundreds of millions of dollars, but the pestilence was most malignant at Memphis. Against this place other cities up the river had special fears, so great indeed that at more than one place cannon were planted near the river to use, if necessary in keeping off any steamer which came from or had even touched the plague-spot.

Just as this second pestilence was declining, the American Public Health Association held its Annual Meeting at the neighboring city of Nashville to discuss what could be done to prevent recurrences of the calamity.

The upper Mississippi, Ohio and lake regions were strongly rep-

resented and called for rigorous measures. "It shall not be that this plague-spot shall stand as a menace to the commercial prosperity of this great valley," was the impassioned cry of one who represented the health interests of a great western city, and severe measures were recommended.

Outside, even harsher methods were suggested or proposed, "in one instance, at least, the heartless suggestion was offered that the flames be made to consume what the pestilence had spared," and thus either blot the place out entirely, or let it rise anew, from clean ashes.

The Health Association was an unit as to the principles involved to cure the evil, and differed only as to the details. Sewer and drain the city, get rid of the cess-pools and privy-pits, clean up the place and support an efficient Health Department.

This, however, was not an easy thing to do. The city was in a sorry plight indeed, its population greatly diminished and impoverished, business had fled to other places, its debt heavy and the interest more than due, the treasury empty, the city practically bankrupt. It gave up its charter and ceased to exist as the City of Memphis and became in law "The Taxing District of Shelby county."

Something now had to be done to save what was left and build anew, if possible. The site was as good as ever, and its natural advantages were great. Noble and enterprising men were left. Great trials develop and bring out some of the noblest traits of humanity, it was so here, and during the pestilence deeds of heroism had been performed more worthy of record than were those done by the knights of old, and when it passed these men were ready to do what was best for their beloved city.

The citizens now saw the absolute necessity of public sanitation. As a plague-spot the city could no longer live, as a healthy city it had a bright outlook. The requisite legal authority was obtained, a heavy tax laid to build sewers, a comprehensive system of sewerage and drainage was devised and executed with a rapidity never before seen. The privy-pits were emptied, disinfected and filled up with earth, streets were cleaned up, people required to connect with the sewers, and an efficient Health Department maintained. The terrible experiences the people had passed through made them readily submit to sanitary ordinances more strict than any city in Connecticut has yet been enabled to enforce.

The change that has come over the city in the eight years, seems more like the tales of romance than the mere realization of a scientific and economic fact.

A dozen or more years ago, many so-called "practical" and "business" men regarded sanitarians somewhat as enthusiastic and impractical theorists. Eight years ago, when in distress, the cry "Come over and help us" showed that sanitary science was being better appreciated. Now, the sanitarians who had been warmly invited to meet there, were most enthusiastically welcomed. The doors of hospitality were thrown open wide, and everything done to make the meeting a pleasant as well as profitable one.

We were welcomed by the leading business men and public officials, the very ones who had come to the meetings at Nashville for aid and advice, were now jubilant even to boasting over the results. "Contrast the melancholy wreck of 1879 with the busy, prosperous, and in some respects model city that now joyfully hails you as its honored guests," was the language of the eloquent and honorable gentleman who bade the Association welcome.

"Then it was on the verge of bankruptcy and financial ruin, now its indebtedness has all been provided for and its credit is above par. Then nine miles of decaying wooden pavements filled its streets; now we show in its stead twenty-five miles of substantial stone and gravel." * * * "Now the vaults that perforated our soil have been filled, and there are forty-five miles of sewerage unexcelled in quality belonging to the corporation, with corresponding sub-soil drain tiles." "Then there were some ten miles of horse car street railway; now there are thirty-five miles of the same kind, and in addition thereunto, thirteen miles of steam street-railway." Railroads have centered there, and business grown beyond the expectation of all except the most hopeful. "Then the value of our annual wholesale and jobbing trade was less than seventy millions of dollars, and the aggregated annual receipts of our cotton less than 400,000 bales; now the same character of trade for the last commercial year aggregated \$160,000,000, and the receipts of cotton were upward of 660,000 bales, and for the current year will be between 700,000 and 1,000,000 bales, making Memphis the largest inland cotton market in the world, and third only, if not second, to any southern seaport." The growth of the place is shown in everything. The

population has more than doubled in eight years. The city is expanding in every direction, building is going on everywhere, real estate is booming, and there is every indication of continued and prolonged prosperity.

The cause of all this change is obvious, the vastly lessened liability to occasional epidemics, and the correlated fact stated in the eloquent address of welcome already cited from. "*Then a normal death rate of 35 per 1000; now, of the resident population, 9 per 1000 of the white, and 26 per 1000 of the colored!*"

Little more need be reported. We were most hospitably and courteously received by the citizens and public officials, and everything possible done to advance the interests of the Association. The discussions and papers related to the more important practical difficulties in public sanitation. "Quarantine," "Drinking-water," "The Disposal of Garbage," "Stream Pollution," "Meat Supply," etc., all of which will be published in extenso elsewhere.

REPORT ON THE PROCEEDINGS OF THE MEETINGS. BY DOCTORS LINDSLEY AND GOODWIN.

The sixteenth annual session of the American Public Health Association was convened at Memphis, Tenn., Tuesday, November 8, at 10 A. M. President George M. Sternberg, presiding. The Rev. Dr. Daniel offered prayer. There was about 200 in attendance. Over 130 new members were elected.

The first paper read was by Carl H. Harsch, M.D., of Dover, N. H. Its subject was "The Necessity of Burial Permits and Inspection of Bodies of Deceased Persons." After alluding to the peculiar nature of our population, being an aggregation of people from all civilized and also from uncivilized nations, the speaker gave several reasons why the inspection of the bodies of deceased persons is necessary. He closed by citing nearly all known methods whereby lingering sparks of life in a supposed corpse might be rekindled.

"The Origin of some Diseases," and "The Prevention of Myrophytic Diseases by Individual Prophylaxis," were the subjects of two papers by Ezra M. Hunt, M.D., Secretary of the State Board of Health of New Jersey. He established two propositions concerning the study of epidemiology and added that as a result of this, four practical results had been obtained as follows:

(1). The study of parasites is only one of the methods of informing ourselves as to the phenomena of disease. (2). Attention should be directed to the study of conditions and circumstances under which new forms appear, instead of the mere finding of a specific form. (3). We would be able to account for the occasional occurrence of a disease independent of any previous case, and for changing types of disease and new diseases. (4). The tendency of all this is to magnify the importance of close observation and that experience which comes from actual practice.

In his second paper, Dr. Hunt enlarged upon the great value of inoculation, and held it to be a fact that the blood may be so changed by antidotal agents as to give the individual practical immunity from pestilence.

At the evening session, the Hon. J. W. Clapp delivered an address of welcome, which was very cordially received. He alluded to the fact that after Memphis had been desolated for two successive years by yellow fever, a proposition was made that it would be best to burn what was left of the city. At Nashville in 1879, at the meeting of this association, a complete system of sewerage was recommended for the unfortunate city, and that suggestion was adopted. As a result the death rate has been reduced one-half, and the city is prosperous and free from pestilence. It is the most remarkable instance of the benefits attaching to the introduction of a system of sewerage recorded in this country.

Governor Robert L. Taylor welcomed the members of the association to the State, making a very felicitous address, which was heartily applauded.

President Sternberg's address was the next in order. He alluded to the good which was accomplished by the National Board of Health in the first part of its existence. Although it finally failed, we should not be discouraged. Experience demonstrates that a central health board to be efficient, must be attached to one of the departments of the government now in existence, so that it may be under the protection of a cabinet officer. It would be useless to ask at the present time that the sanitary interests of the country may be represented by an additional cabinet officer, a minister of public health, although there can be no doubt that the interests involved are sufficiently important to justify such an innovation. But we may at least demand that the sanitary interests of the people of the United States shall receive the same consideration from the National Government that is accorded to the

educational interests, the agricultural interest, etc. We may at least ask for a bureau of public health, with a commissioner at its head, and with the necessary secretaries and clerical force to make it efficient; and attached to such a bureau should be a well-equipped laboratory in which expert bacteriologists, chemists and sanitary engineers should be employed in the experimental investigation of unsettled sanitary problems, such as the natural history of disease germs, the best methods of destroying them, protective inoculations against infectious diseases, problems in sanitary engineering, such as the disposal of sewage, domestic sanitation, etc.; food adulterations, and a variety of other questions of equal importance which will readily occur to you.

In connection with a bureau of public health, it would certainly be desirable to have an advisory board of health, to which the commissioner could refer questions for consideration, or which could advise him of new measures, or desirable changes in his regulations, which, after full discussion, commended themselves to the judgment of the board. Such a board should have no executive power, and the members should receive no pay beyond their actual expenses in attending the appointed meetings.

President Sternberg then alluded touchingly to the death of Dr. Samuel M. Bemiss of New Orleans, and passed on to say that epidemics are often blessings in disguise, as they bring about needed sanitary improvements. The necessity of constant vigilance against infectious diseases was dilated upon at some length.

Continuing he said: The question whether it is practical to make a city, which lies in the area subject to invasion, proof against epidemics of yellow fever and cholera is one of very great importance. At the International sanitary conference of Rome, the delegates from England and from India opposed all quarantine restrictions as unnecessary, and pointed to the fact that for years there has been constant and free communication between cholera-infested ports in India and the seaport cities of England, but that cholera has not effected a lodgment in that country. Dr. Thorne, of the local government board, a delegate to the conference, ascribed this immunity to the sanitary improvements which have been carried out in England during the past ten or twelve years. Now without denying the value of the sanitary improvements which have been carried out in England, and the possibility that her immunity from cholera is largely due to them, the delegates

from more exposed countries, such as France and Italy, demanded a quarantine station upon the Suez Canal, and pointed out the fact that their seaport cities were not in such a sanitary condition that they could hope to escape the ravages of the pestilence, in case of its introduction, and that to place them in such a state of defense would require time and the expenditure of large sums of money. It was noticeable that those countries, such as Turkey, Egypt and Spain, where sanitary improvements have made the least progress, were the most exacting with reference to quarantine restrictions. As a compromise between the old-fashioned time quarantine and the British practice, a plan was adopted which consisted of a sanitary supervision of ships at the port of departure, when this was an infected port or in communication with an infected locality; in the sanitary supervision of ship and passengers while in transit, by a properly qualified physician upon all passenger ships; and in such detention at the port of arrival as might be necessary for the disinfection of the ship, the personal effects of the passengers, etc. If one or more cases of cholera should appear on board during the voyage, they were to be isolated and rigid measures of disinfection carried out, and the action of the health authorities at the port of arrival was to depend largely upon how effectively this had been done. In short, the treatment of the vessel and its passengers was not to be determined in advance by arbitrary rules, but was to be governed by an intelligent consideration, by an expert, of all the circumstances relating to the sanitary history of the ship from the date of its departure from the infected port. This rational quarantine service, which is far less burdensome to the commerce of a country than the arbitrary time quarantine of former days, has proved itself to be also more effectual in accomplishing the end in view. This is amply proved by recent experience in our own country, where, to a large extent, the principles indicated control the action of the health officers of our principal seaports.

President Sternberg said in reference to the action taken by the sanitary officials of the port of New York upon the arrival of the two cholera infected vessels from the Mediterranean that, while it was too early to speak with confidence, there was reason to hope that the measures taken would prove sufficient. Ample evidence demonstrates that the epidemic extension of this disease is due largely if not exclusively to the water supply. This is shown in the cases of Rome, with its ample supply of pure water and free-

dom from the disease, and Naples, with its immunity from the epidemic since the completion of its new system of water works. In reference to a system of quarantine, the speaker said he thought that the expense for its maintenance should fall upon the general government rather than that commerce should be taxed. Several illustrations of the evils of the present system were given. Attempts have been made to establish an international code of quarantine regulations, but thus far they have failed, owing to the very diverse opinions held by the delegates from the several nations who have been assembled for this purpose, and to the conflicting interests of some of the great powers. While as a nation we have taken part in these sanitary conferences, and have advocated an enlightened and uniform policy of quarantine administration, and international notification of infectious diseases, we have as yet no uniformity in the quarantine regulations of our own seaport cities, and no central health bureau. Gentlemen, it is well for us to consider these matters, and to point out to our legislators the present unsatisfactory condition of affairs with reference to the subjects referred to. The chief aim of the American Public Health Association should be to ascertain what measures are most effectual for the restoration of their endemic maladies, such as typhoid fever and the malarial fevers, and for the banishment of all diseases in which the contagion is given off from the persons of the sick, such as scarlet fever and small-pox. So far as the diseases of the class last mentioned are concerned we may safely say that we know how they may be banished from a community, viz: by isolation of the sick and disinfection of all infectious material, and in the case of small-pox by vaccination. Our main mission, therefore, is to insist upon the thorough execution of these measures. The principles of personal hygiene should also be taught the people.

Among the other directions in which the association should work is that of special investigations in sanitary science. These can be carried on with comparatively small outlay. Great progress has been made in this study, but comparatively little of it is due to American investigators. In Baltimore there is a well equipped bacteriological laboratory. In New York, Boston, and Philadelphia others have been established in connection with medical schools. In Brooklyn, the Hoagland laboratory is in process of construction. A similar institution has been established in the State of Michigan. The discovery of tyrotoxin by

Prof. Vaughn of that State is a very important event in the field of sanitary science. The work of Pasteur and other investigators has been productive of important results. With reference to cholera, I may say to you that recent researches give support to the conclusions of Koch as to the pathogenic role in this disease, of the spirillum discovered by him in the intestines of cholera patients. Lustig, director of the cholera hospitals at Trieste, examined the dejecta in 170 cases of cholera and found the spirillum of Koch in every case. At Padua, also, researches made by Canestrini and Morpurgo gave the same result; the spirillum was constantly found in the dejecta in recent cases. These observers state that the cholera spirillum retains its motility and reproductive power for a considerable time in sterilized distilled water. They were able to obtain cultures after two months from such water. This important fact has been verified by Pfeiffer, who found, however, that in the presence of common saprophytic bacteria the cholera microbe soon died out. Hueppe has shown that the cholera spirillum forms reproductive elements, which he calls arthrospores. These are not so readily destroyed by dessication as are the fresh bacilli, but they have nothing like the resisting power to heat and chemical agents which characterizes the endogenous spores of the bacilli.

The question of the etiological role and biological characters of the typhoid bacillus discovered by Eberth in 1880 has occupied numerous bacteriologists during the past year, and very important additions have been made to our knowledge with reference to this organism. The earlier researches of Eberth, Koch, and Gaffky are confirmed as regards the present bacillus in the intestinal glands, the spleen and other organs in typhoid cases, and very little doubt exists among bacteriologists as to the etiological relation of this organism to the disease in question, although no satisfactory proof by inoculations in lower animals has yet been found. This, however, is not surprising, inasmuch as we have no evidence that any of the animals experimented upon are liable to contract the disease as man does, by drinking contaminated water.

The question of the etiology of croupous pneumonia has received much attention during the past year, and it is now evident that the bacillus of Friedlander, which has been cultivated for some years in the laboratories of Europe, under the name of "pneumococcus," is not entitled to this distinctive appellation. On the other hand, evidence is accumulating that a micrococcus,

which I have described under the name of *M. Pasteuri*, and which is found in normal human saliva, is far more frequently found in the exudate into the alveoli during the acute stage of croupous pneumonia than is that of Friedlander. I first experimented with this micrococcus in 1880, and isolated it in pure cultures in 1881, but it was not until January, 1885, that I discovered its presence in pneumonic sputum and made inoculations in rabbits with this material with satisfactory results. Weichselbaum reports that he has found this organism in ninety-four cases of pneumonia, eighty of which were primary and fourteen secondary. On the contrary, he only found Friedlander's bacillus in nine cases. In three of these cases it was associated with the diplococcus above referred to, and in only three instances was it obtained alone in pure cultures.

Weichselbaum arrives at the conclusion that pneumonia may be induced by several different organisms, but that the diplococcus which I have called *M. Pasteuri*, a name, by the way, which none of the German authors have been willing to accept, is by far the most frequent cause of genuine croupous pneumonia.

Among the most important investigations of the past year are those of Councilman of Baltimore, and Osler of Philadelphia, with reference to the presence of micro-organisms in the blood of malarial fever patients. Both of these observers confirm the discovery of Laveran, who in 1880 announced, as the result of extended researches made in Algeria, that blood drawn from the finger of such patients during a febrile paroxysm contains a parasitic infusorium, which presents itself in different phases of development, and which in a certain proportion of the cases was observed as an actively mobile flagellate organism.

President Sternberg's able address closed with brief tributes to the members of the Association who had died during the year.

At the second day's session an excellent paper by Carl H. Harsch, M.D., of Dover, N. H., was read by Dr. John H. Rohe in Dr. Harsch's absence. The subject of the paper was "The Necessity of the Inspection of Animals Prepared for Food." The paper cited at great length the deleterious effects arising from eating the meat of animals improperly slaughtered, and closed by recommending that competent persons should be appointed to inspect animals before they were slaughtered, and that a close examination of the internal organs be made afterward.

Upon a kindred topic, "The Meat Food Supply of the Nation,"

Azel Ames, M.D., of Chicago, read an exhaustive paper, showing the conditions as between the food supply of the nation and its population, which are the chief anxiety in European nations, are just becoming important in this country. Our population is growing, and our herds have been rapidly decreased by disease. To-day the proportion of cattle to population is less than 700 to the 1000, as compared with 814 in 1860. We consume to-day 150 pounds of meat per capita against 111 pounds in 1860, and in Great Britain it has increased from 77 pounds per capita to 109 pounds since 1860. The rapidly diminishing grazing area and the increased cost of production are elements which also tend to reduce the supply. It is the duty of the national government to take this matter in hand, for it virtually interests the whole people, and the next general census should include full and complete data on the subject.

Considerable discussion was aroused by the paper of John H. Rauch, M.D., Secretary of the State Board of Health of Illinois, which was upon "Cholera and Quarantine." The deficiencies of the quarantine of New York were explained, and several circulars and letters bearing upon the subject were read. Dr. Rauch concluded by saying that the general government should take charge of the quarantine service. Several of the speakers criticised the condition of the quarantine service of New York. As a result of the discussion the following resolution, offered by J. McCormack, M.D., of Kentucky, was adopted:

"WHEREAS, This Association has heard with surprise and alarm that after four years of warning Asiatic cholera found the authorities of the port of New York totally unprepared to deal with it; and, whereas, the administration of the quarantine regulations at all ports, and especially at the port of New York, at this time is of the highest importance,

Be it Resolved, That this Association urges upon the authorities of the State and port of New York such a revision and modernizing of their methods as will insure protection from exotic plagues."

A very profound and timely paper was that by Joseph Holt, M.D., President of the State Board of Health of Louisiana, on "Quarantine Defense of the Mississippi Valley." The speaker presented a very elaborate plan which in a nutshell is to segregate the sick and the well of a vessel on which has been found persons sick of yellow fever, cholera, small-pox, or any other infectious disease, and the disinfection of the ship and the baggage. In the

case of a cholera-infected vessel, this disinfection is extended to the disinfecting washing out and refilling of the water tanks, destruction of the food supply and revictualing of the vessel. The ship, together with all on board, is held for observation during a period of ten days or more, as circumstances may require, after which she is released and proceeds to the upper station, where the processes of sanitary treatment are repeated as an extraordinary precaution, with the addition of the use of moist heat applied to the baggage, the ship's company's apparel, after which the vessel is allowed to proceed to the city. This may take ten or twenty or more days, and it may be attended with the wetting and soiling of some articles. This does not prevent or stay the process, as the doctor says ship-masters have no right to bring their pests of disease and filth to our shores. If they do they must take the consequences.

Dr. L. Laberge, medical health officer of Montreal, Canada, read a short paper on "The Disposal of Garbage." He described the working of the Mann Incinerator in Montreal, and stated that last year the contract was given out for five years, at the rate of \$43,000 per year, which sum, however, included the cremation. The paper closed with a descriptive diagram of the Mann patent. The methods of incineration in use in Pittsburg, Des Moines, Glasgow, Scotland, and elsewhere, were described by other speakers.

A discussion upon the question, "What are the privileges and experiences of State officers as to the investigation of epidemics at points in other States and provinces threatening to them?" He said that the recent experiences at the New York quarantine had made permanent three facts, viz: Its state of non-preparation, the apparent division of responsibility therefore, and the great interest and dependence of the whole country upon the New York quarantine. The remedy proposed was national control of maritime quarantine. Several speakers opposed the idea of national control and the subject was finally referred back to the representatives of State Boards of Health.

At the evening session a paper by Professor S. W. Williston, of New Haven, Conn., was read by Dr. C. A. Lindsley. The subject was "River Pollution in Connecticut." The author treated of the contamination of the rivers of the State by sewage, and that were it not for the fact that there were abundant inland bodies of water which were kept free from obnoxious flowage,

the water supply in the State would have long since been exhausted for cleanly consumption. The question was how much sewage an open stream of water could carry and not make it unwholesome for people to live upon its banks. From a careful examination and test of the fresh water streams in the State, they had about reached that limit.

Mr. Rudolph Hering, lately the chief engineer of the Sewage Commission of Chicago, read a short paper on the question of selecting a water supply.

The last day's business of the session consisted chiefly in the election of officers and the adoption of resolutions. The officers elected were : President, Dr. Chas. N. Hewitt, Minnesota ; First Vice-President, Dr. G. B. Thornton, Memphis, Tenn.; Second Vice-President, Dr. Joseph Holt, New Orleans, La.; Treasurer, Dr. J. Berrien Lindsley, Nashville, Tenn., re-elected. Dr. Irving Watson, New Hampshire, Secretary, was elected for three years, and has two more years to serve. The members of the executive committee are H. B. Baker, Michigan; S. H. Durgin, Massachusetts; J. N. McCormack, Kentucky. The place of meeting will be Milwaukee, Wis.

The following resolution was adopted :

WHEREAS, In the judgment of this Association, some form of national health administration is essential to the protection of the nation, and to a proper use of the various facts and statistics that can be collected from the States and Territories; therefore,

Resolved, That the Advisory Committee indorses the recommendation of the President of the Association relating to the creation of the office of Health Commissioner by the general government; and further, that we earnestly recommend that the Association use all warrantable means toward bringing about the necessary legislation to create such an office.

Resolved, That a committee of five be appointed by the President for the purpose of recommending such legislation.

A resolution was also adopted asking the Government to make additional appropriations for the maintenance of the United States quarantine stations at Delaware Breakwater, Sapelo, Cape Charles, and the Gulf of Mexico, and that legislation providing a penalty for the violation of the United States quarantine law is an urgent necessity.

The Association was again made the medium for the distribution of prizes offered by Mr. H. Lomb of Rochester, N. Y. The

subject on which prizes are to be awarded this year is "PRACTICAL SANITARY AND ECONOMICAL COOKING FOR PERSONS OF SMALL AND MODERATE MEANS." The first prize is \$500 and the second \$200. The Committee of Award are Prof. C. A. Lindsley, M.D., New Haven, Conn., Prof. G. N. Rohé, M.D., Baltimore, Md., and Prof. Victor C. Vaughan, Ann Arbor, Mich., with two additional members to be added, selected by the above, from teachers of Cooking Schools.

ORIGINAL PAPERS

ON

MISCELLANEOUS SUBJECTS.

The following papers on Sanitary topics have been contributed by their authors, and accepted by the Board.

The authors of said papers, and not the Board, are responsible for the opinions expressed therein.

REPORT ON RIVERS POLLUTION

BY

PROF. SAMUEL W. WILLISTON, M.D., PH.D.

— WITH —

REPORTS ON WATER ANALYSES

BY

PROF. HERBERT E. SMITH, M.D., AND WM. G. DAGGETT, M.D.

Prof. C. A. LINDSLEY, M.D.:

Secretary of the State Board of Health of Connecticut:

DEAR SIR—

I have the honor to submit the following report of Rivers Pollution investigations, made during the past season in accordance with instructions from the State Board of Health.

Respectfully yours,

S. W. WILLISTON.

New Haven, December 1, 1887.

By an act approved March 24, 1886, the following duties were made incumbent upon the State Board of Health:

Be it enacted by the Senate and House of Representatives in General Assembly convened:

SECTION 1. The State Board of Health are hereby authorized and empowered to investigate and ascertain as far as practicable all facts in relation to the pollution of streams and natural waters of this State by artificial causes, which in their judgment may be necessary to determine the sanitary and economic effects of such pollution, and may have power to enter upon lands, buildings and premises, as may be necessary for their investigations, and may institute and conduct needful experiments pertaining thereto, and shall have power to summon witnesses, administer oaths, and hear evidence relating to such matters, and said Board of Health shall make a report of their operations, in writing, to the Governor, on or before the first day of December in each year.

SEC. 2. The treasurer of the State is hereby authorized to pay to said Board of Health for the purposes of such investigations and experiments upon the Comptroller's warrant in such sums as the

certificate of the Board with proper vouchers annexed may certify from time to time, a sum not to exceed five thousand dollars.

This enactment has grown out of a conviction on the part of those acquainted with the rapidly growing pollution of our streams, that the time had arrived when the interference of State jurisdiction was imperatively needed. Hitherto but little attention has been given to this subject in Connecticut, and the result has been that in several instances the local interests of towns, cities and corporations have apparently, or in reality, conflicted with the rights and privileges of others, both in a sanitary, and in a less degree, in a commercial sense. In one such instance, at least, State power has already been invoked to remedy a serious and growing evil; in others, power has been sought and obtained to prevent the sudden and excessive contamination of waters where such contaminations would conflict with the welfare of others.

There can be no doubt but that many of the streams of this State are already in, or are approaching a state of excessive pollution. The increase in pollution is greater now than it ever has been before, and for many years to come, without preventive legislative measures, the rivers are bound to receive a continued greater proportional increase of deleterious matters. The cause of this undue increase it is not difficult to find. The growth of population is almost without exception in manufacturing centers. The decrease of the agricultural, or rural population in Connecticut has been steady and general for some years. Connecticut is becoming more and more dependent every year upon its manufactures, for which the natural resources are good. The numerous, rapidly flowing, unfailing streams of clear water, the proximity to commercial centers, and the ready accessibility by rail and water, all unite to build up manufactures and to draw the population into villages and towns. For instance, nearly a fifth part of all the inhabitants of the Naugatuck valley are employed in its manufactures.

But this segregation produces a two-fold result upon the streams; not only are the wastes from the manufactures added to the streams that furnish them motive power, or at least water, but the people themselves are brought into the most favorable condition for discharging their polluting garbage, ordure or sewage directly into the rivers.

It will surprise one who has not paid direct attention to the growth of Connecticut cities to learn how rapidly the manufacturing centres are growing; I doubt not that not a few will show an increase of from fifty to seventy-five or even more per cent. during the decade that will end with the next census. Especially will this large increase be found in the centres of the metal manufacturing, for which the State seems especially adapted. Woollen manufacture, for some reason to me unaccountable, seems, at least in some places, enfeebled in its growth, or even positively declining.

With this disproportional increase of the riparian population, must be taken into account another circumstance which indicates an early and rapid increase of river pollution. Many villages and cities are rapidly reaching, if they have not already reached, a density of population where cess-pools and privies are no longer tolerated, and where the construction of sewerage works becomes both practicable and necessary. Furthermore, the demands of sanitation are constantly becoming greater; the State and local boards of health are factors in our increasing river pollution.

Without preconceived opinions on the subject, and far from being one of those pessimists on the subject of pollution, who see death lurking in every privy, or disease running riot in every cess-pool, I am led to believe that the time is not far distant when many of our brooks and rivers will have become diluted sewers. Can there be aught than depreciation of such a possible future condition?

Further pollution of our streams must be stopped sometime, there is no getting around that, without we are willing to see them reach the condition that certain English rivers are already in, so discolored as to make a very legible writing ink, or so vile as to be the direct cause of sickness to those compelled to be upon or near them.

Fortunately in Connecticut the question is not one of the pollution of drinking waters, else the subject would have before now been a serious one. The water-supply of nearly all our cities is drawn from the comparatively pure lakes and reservoirs, which do not contain much animal pollution. I do not think there is a river in our State whose waters, except near the sources, are free from danger for domestic purposes. At Ansonia, the water of the river has been used, I was told, to supplement the deficient summer supply. To say nothing of the eight or ten tons of man-

ufactory refuse daily thrown into the river above, I hardly think the average user would have been happy in the consciousness that in every million gallons so used, not far from two hundred people had discharged their excretions.

As regards the potability of water once contaminated by sewage, the following conclusions and recommendations of the English Rivers Pollution Commission (Sixth Report, p.227, et seq.) will be of interest.

"1. When the sewage of towns, or other polluting organic matter is discharged in running water, the suspended matters may be more or less perfectly removed by subsidence and filtration, but the foul organic matters in solution are very persistent. They oxidize very slowly and they are removed only to a slight extent by sand filtration. There is no river in the United Kingdom long enough to secure the oxidation and destruction of any sewage which may be discharged into it, even at its source."

"2. Of all the processes which have been proposed for the purification of sewage, or of water polluted by excrementitious matters, there is no one which is sufficiently effective to warrant the use, for dietetic purposes, of water which has been so contaminated. In our opinion, therefore, rivers which have received sewage, even if that sewage has been purified before its discharge, are not safe sources of potable water."

As to the improvement of water by filtration :

"1. Sand filtration as carried out in water-works not only clarifies the water by removing suspended impurities, but also diminishes the proportion of organic matter in solution, to an extent dependent upon the thickness of the filtering medium, and the rate of which the water passes through that medium."

"2. Domestic filtration, as usually practiced, is of little or no use ; but, properly performed, it is much more efficient than sand filtration on a large scale, in improving the quality of the water polluted by organic matters. The best materials for domestic filters are spongy iron and animal charcoal."

"3. Although the improvement of excrementally polluted water by filtration may reasonably be considered on theoretical grounds to afford some feeble protection against the propagation of epidemic diseases by water, no trustworthy evidence can be adduced to support such a view."

The problem, then, is, how great a pollution of a stream can exist before it becomes a nuisance? This question cannot be answered definitely. It is not easy to trace cases of disease directly to the proximity of decomposing sewage or human ordure, yet who can doubt that such proximity is unhealthy? The offal of a slaughter house in our backyards would not necessarily cause typhoid fever, malaria, or any other disease, per se, so far as we know, but it certainly would furnish very good surroundings for the reception of any diseases. There are some, even physicians, who assert that a clean stink is not unhealthy, but I believe that the odor of decomposing organic matter is in every case unhealthy. One is frequently met with the statement that plumbers work over sewage with impunity, and so they apparently may; the healthy active man is more resistant to depressant influences than when enfeebled or inactive. The chief influence of excessively polluted streams is that of a depressant upon vital force, an influence that is covered by the broad term unsanitary.

At the meeting of the American Public Health Association the present year in Memphis, Mr. Rudolph Hering, the well known sanitary engineer of Chicago, stated, as reported in the New York Medical Record, that "The amount of pollution which was permissible before advising the disposal of sewage by land filtration or chemical treatment is limited to the sewage of 1,000 persons to each 120 or 150 cubic feet per minute river flow in summer, or 180 to 240 feet in winter when the river should be covered with ice."

This opinion, coming as it does from a sanitarian of Mr. Hering's acknowledged standing, is entitled to great weight; but yet it must not be lost sight of that it is only an opinion, based upon a thorough knowledge of the subject. It is impossible to arrive at any positive data on the evils to health caused by highly contaminated water, and evil effects might be ascribed by some, where others would believe the water comparatively harmless. Still, in the absence of positive facts bearing upon the subject, Mr. Hering's estimate should be accepted. This amount will permit a flowage of not less than 175,000 cubic feet daily, but we may place it in round numbers at 200,000 cubic feet, or 1,500,000 U. S. gallons.

"The net result of these complex processes—pollution by sewage, oxidation of the sewage, consumption by minute animals,

and reoxygenation of the river by the action of vegetable life, and by renewed absorption of oxygen from the air—is that in cold weather and in cool wet summers the pollution of the river water exists indeed, but does not increase ; the above processes being adequate to prevent that. But during hot dry weather the pollution increases, exceeding the purifying power of the agents for its removal ; and the river then becomes a nuisance more or less great, and within greater or less limits.”*

My investigations the present season were begun the first of July, and were prosecuted during most of the time up to November. In this short space of time it cannot be expected that completeness has been attained in many, if any of the subjects under consideration. The end that I have endeavored to attain was the ascertainment of the present condition of certain rivers, as regards their pollution. The many general scientific investigations of river pollution it is wholly unnecessary to repeat, they have been worked out with thoroughness by the English and Massachusetts Commissions. My examinations have been directed toward the ascertainment, first, of sewage pollution ; second, of the kinds and quantities of manufacturing refuse ; third, of the minimum flowages of the rivers at different places. The rivers investigated have been Piper’s Brook, and the Naugatuck, Still, and Hockanum Rivers. The latter two have been less thoroughly examined, and will need additional investigations.

Owing to the continued high waters and wet summer, it has been impossible to arrive at correct opinions regarding the usual summer weather flowage and the actual condition of the streams as indicated by the senses. I have for this reason not attempted any extended measurements of flowage ; in nearly every case the conclusions reached would have been unsatisfactory. It is quite essential for the correct appreciation of the actual or allowable contamination of a stream that we know the amount of water flowing in it when the effects of contamination are at their worst—during the summer low stage. I would recommend that further and elaborate examinations be especially directed toward this point for all the streams of the State that are, or are liable to be, contaminated seriously. I would further recommend that surveys of the sources of pollution be made of the Quinnipiac, Farmington, Willimantic and other rivers of our State.

* First Rep. Royal Commissioners on the Metropolitan Sewage Discharge (1884), p. 62.

For the proper understanding of the manufactory refuse it is necessary that the processes of manufacture in the chief industries, so far as they have reference to refuse, be given. For this reason I give descriptions of such processes, derived chiefly from personal inspection, but also largely from information given me by the manufacturers. Other information concerning them I have obtained from the English Commission reports, and the Massachusetts reports, but, except of the woolen and paper mills, I have found little to my purpose in the literature of the subject.

My estimates of the chemicals used in the different manufactories have been in almost every case derived from the proprietors or officers. With but three or four exceptions I have personally visited the manufactories and requested blanks to be filled out on the different points upon which I desired information. I am very happy to state that with very few exceptions the manufacturers have acceded to my request; in the Naugatuck Valley there is but a single manufactory above Ansonia from which returns were not received. It will be understood that in some, perhaps many, cases, these returns represent *estimates* made by the manufacturers, but in numerous instances, especially of the largest concerns, these returns were made out with considerable trouble from the books of the companies. It would be desirable to give these returns in detail from each manufactory, but such was objected to I early found, and with entire justness. To publish them as given would be to publish the details of the companies' business, which in many cases would be of direct commercial injury to them. I have, for this reason, grouped together the returns. It is very true that such reports are liable to error in giving lessened quantities or omitting such as the manufacturer has reason to believe are very deleterious, but such errors are I believe unimportant, and are easily recognizable in the comparison of numerous returns in one kind of industry. Still, I have found the woolen manufacturers rather less willing to furnish the reports than were those of metal goods.

SELF-PURIFICATION OF STREAMS.

There has been some diversity of opinion whether or not running streams of water will purify themselves of deleterious organic matter to any great extent. The great weight of opinion, borne out by experimentation, is that such self-purification does not go on, except in a limited degree. According to Dr. Frank-

land about four-fifths of the nitrogenous matter contained in fresh sewage is decomposed very quickly, but the remainder is decomposed with extreme slowness afterward ; and he is of the opinion "that water which has once been contaminated by sewage or manure matter is thenceforth unsuitable for domestic use."

"It is evident, that so far from sewage mixed with twenty times its volume of water being oxidized during a flow of ten or twelve miles, scarcely two-thirds of it would be so destroyed in a flow of 168 miles at the rate of one mile per hour, or after the lapse of a week. Thus, whether we examine the organic pollution of a river at different points of its flow, or the rate of disappearance of the organic matter of sewage when the latter is mixed with fresh water and violently agitated in contact with air, or finally the rate at which dissolved oxygen disappears in water polluted with five per cent. of sewage, we are led in each case to the inevitable conclusion that the oxidation of the organic matter in sewage proceeds with extreme slowness, even when the sewage is mixed with a large volume of unpolluted water, and that it is impossible to say how far such water must flow before the sewage matter becomes thoroughly oxidized. It will be safe to infer, however, from the above results, that there is no river in the United Kingdom long enough to effect the destruction of sewage by oxidation."*

"I believe that an infinitesimally small quantity of decayed matter is able to produce an injurious effect upon health. Therefore, if a large proportion of organic matter was removed by the process of oxidation, the quantity left might be quite sufficient to be injurious to health. With regard to the oxidation, we know that to destroy organic matter the most powerful oxidizing agents are required, we must boil it with nitric acid and chloric acid, and the most perfect chemical agents. To think to get rid of organic matter by exposure to the air for a short time is absurd."†

It is useless to go into this subject further, the evidence furnished by the Plymouth epidemic, as well as numerous similar epidemics set the question practically at rest—a flow of three hundred miles would not free sewage from danger as drinking water. Perhaps the longest polluted stream we have in the State is the Naugatuck, and sewage turned into it at Torrington is still chiefly sewage at Ansonia, albeit largely diluted.

* First Rep. R. P. C., 1868, i, p. 18, et seq. † Prof. B. Brodie, *ibid*, ii, p. 49.

THE EFFECTS OF RIVER CONTAMINATION UPON FISH.

The effects of river contamination upon fish are of considerable importance, though secondary to sanitary or even industrial considerations. It is extremely desirable, wherever possible, that the waters of our streams may be kept sufficiently pure to permit the growth of fish, that may thus serve as an important source of healthful food supply for the people, but, when the question comes to which are of the more importance, fish or the manufactories, there can be but one answer.

While the impurity of water may in a measure be indicated by its poisonous action on fishes, and while water sufficiently contaminated to prevent the life of fish in it is unquestionably too much polluted for any domestic purposes, it does not necessarily follow that such contaminated streams must be dangerously polluted. Fish will live in concentrated fresh sewage, but will die when the water contains the one hundred thousandth part of blue vitriol, yet scarcely any comparison can be made between the pollution and danger of sewage and water containing blue vitriol in the proportion of a half grain per gallon.

The effects of various chemical compounds when mingled with water have been thoroughly studied, especially by Penny and Adams of Scotland in 1867, and the results of their experiments may be accepted without hesitation. Their experiments were made upon two different kinds of fishes, the goldfish and the minnow, the former well known for its hardiness and tenacity of life, the latter of delicate vitality, easily affected by injurious influences. Among the different chemicals experimented with I choose those that form the chief refuse in our streams.

The proportion given is that at which the substance proved fatal.

Sulphuric acid	$\frac{1}{50000}$
Nitric acid	$\frac{1}{50000}$
Sulphate of copper (blue vitriol)	$\frac{1}{100000}$
Sulphate of iron (copperas)	$\frac{1}{10000}$
Alum	$\frac{1}{10000}$
Caustic potash	$\frac{1}{30000}$
Chloride of lime (saturated solution)	$\frac{1}{20000}$
Furnace cinders	$\frac{1}{140}$
Coal tar	$\frac{1}{8750}$

I by no means wish it to be inferred from what has been said that sewage proper is harmless to fishes; evidence seems sufficiently decisive that sewage matter, after it has undergone change, is deleterious, though in the fresh state it may not be. But, at all events, it requires a considerable degree of sewage pollution to render water wholly unfitted for fish life.

BACTERIOLOGICAL ANALYSES.

BY WM. G. DAGGETT, M.D.

For the determination of the purity of water we have been accustomed until within the last ten years to depend entirely upon chemical analysis, but the rapid development of bacteriology, and the relations established between bacteria and disease, have led to the introduction of an additional factor, namely, bacterial analysis, in our estimation of the quality of water. We know that certain bacteria cause disease; we know that most varieties of these microorganisms can and do flourish in water; we know that many grave epidemics of infectious diseases have been favored by the use of polluted drinking water; and we know, further, that a chemical analysis will not reveal the presence of virulent organisms. We therefore consider a simple chemical analysis as insufficient in some cases to determine the usability of a given source of water supply. In many instances water is so evidently foul, as shown by its odor, taste, or color, that no analysis is needed to establish its character—it is rejected by common consent as unfit for use. In a second and far more dangerous group of cases the water is clear, free from odor, and without taste, but yet is found on chemical analysis to contain deleterious ingredients in sufficient quantity to render it a source of danger to consumers. In a third and less numerous class water may with great justness on circumstantial evidence be considered a cause of disease, and yet chemical analysis will reveal no marked deviation from the standard adopted for usable water. In this class the bacteriological analysis has special value, for it may reveal the presence of disease germs which are inappreciable to the unassisted senses, or to the resources of the chemist, but which are disclosed only to the careful quest of the bacteriologist.

No case is on record where an epidemic has been traced by bacteriological examination to the presence of harmful bacteria in the water supply, but that is because opportunity for such search

has been overlooked in the hitherto undeveloped state of this science, and not to the fact that such opportunity did not exist. The water of Plymouth, Penn., where, in the spring of 1885, there raged an appalling epidemic of typhoid fever, gave on chemical examination only negative results, yet the disease was without doubt due to pollution of a source of supply by typhoid excreta, and a bacterial analysis would no doubt have revealed the presence of typhoid bacilli in large numbers.

The germs were not found because they were not looked for, not because of their absence. Without, however, making what may seem to some a gratuitous assumption like the above, it will be granted that enough is known of disease-producing bacteria to justify examination of water in suspicious cases, and to render an examination of water without reference to bacteria incomplete.

The conditions of life are such for bacteria that they require an inappreciable amount of pabulum for maintaining existence. Even when sown in freshly distilled water they flourish, while in water rich in organic matter they simply run riot. In respect to their ability to subsist on scanty diet they closely resemble some of the higher fungi which thrive on rocks and in desert places where no animal or higher plant could maintain life. The condition of the water as to rest or motion has much to do with the number though not with the kind of bacteria found. If the water in a well, for instance, is freely used the number of bacteria found will be minimal, while if it be not much used the number will be excessive—this is without regard to the chemical constitution of the water. So also the temperature of the water, by affecting the rate of multiplication, influences the number of contained bacteria. The thermal point of greatest reproductive activity varies with different species, but, as a general rule, increase is checked by a freezing or a boiling temperature, and is most active at the temperature of the human body.

In the case of drinking water showing by chemical analysis a reasonable degree of purity, it is not the number of bacteria but the kind which render the supply harmful, for most of these fission-fungi are without any untoward effect on the human organism. In practice, however, it is impossible to determine at all times the nature of the organisms present, such a requirement necessitating the frequent, perhaps weekly or daily, elaborate examination of a large number of samples. The most we can do is to have regard for the *liability* of contamination, and exclude

from use waters which are likely to contain disease-producing organisms. For convenience in practice an arbitrary standard of bacterial purity has been adopted, based on the number of bacteria capable of development contained in one cubic centimetre, a number in excess of one hundred being considered as indicating either undue stagnation or a frequently recurring increment of bacteria which may be pathogenic. Take, for instance, the water of a stream receiving a large flow of sewage where samples taken above and below the mouth of the sewer show respectively eighty, and twenty thousand bacteria per cubic centimeter—in such a case the water above, as regards the bacterial standard, would be usable and the water below unusable, the latter being liable to contain certain dangerous bacteria which are of frequent occurrence in large communities. It is in this light that the examinations made in connection with this report must be viewed, taken in conjunction with the chemical analyses and the general conditions.

The samples of water here reported were taken from running streams, care being taken to avoid pools, eddies or stagnant places ; and most of the collections were made in the fall when the water was not as warm as it would be in summer. The method of collecting and testing water followed in this work was as follows, most scrupulous attention being given to details whose neglect would vitiate the scientific value of the tests.

Small glass bottles, of a capacity of about two fluid ounces, provided with tightly fitting ground glass stoppers, are carefully cleansed and then sterilized by subjecting them to a temperature of 150° C. (302° F.) for one hour. Over the stoppers are then placed tightly fitting rubber caps which have been soaked for some hours in a solution of corrosive sublimate of the strength of 1-2000. These bottles thus carefully protected from atmospheric contamination are then carried to the water which is to be tested. On arriving at the designated place the examiner sterilizes his hands by rinsing them in a solution of corrosive sublimate of the same strength as above. He then takes a bottle, holds it under water, removes the cap and stopper, allows the water to flow in, replaces the stopper and cap, and then, when it is carefully sealed up, lifts it from the water and places it in a receptacle containing ice. The ice is used to produce a low temperature at which multiplication will not occur.

Arriving at the laboratory the cap and stopper are removed

and one cubic centimetre of the water is drawn into a sterilized pipette and quickly transferred to a tube containing about ten cubic centimeters of sterilized nutrient gelatine. This gelatine is then by rapid manipulation with sterilized utensils spread on a sterilized glass plate and placed on a glass bench in a sterilized moist chamber of glass. The chamber is then set aside to afford the bacteria a chance to develop. At the end of twenty-four to seventy-two hours the thin layer of gelatine is found to be more or less thickly studded with minute whitish or grayish spots. These spots represent colonies of bacteria, and each colony is assumed to be the outgrowth of a single germ in the original water. The colonies are then counted by being placed under a ruled glass plate. If it is desired to determine the nature of the bacteria developed they can be transplanted from the plate by means of a platinum needle to the surface of a potato, to blood serum, to agar-agar, or to any suitable culture medium where the peculiarities of growth may be noted. The sum of these culture observations and subsequent examinations with a microscope of high power, gives us data for identifying varieties. Scarcely any variety can be identified by a single characteristic.

In the examinations here reported, test plates were made frequently to test the thoroughness of the precautions used to prevent contamination, and in every case they gave negative results.

MANUFACTURING PROCESSES AND REFUSE.

BRASS MANUFACTURES.

As is well known, the various brass manufactories form the chief industry of the Naugatuck valley, an industry for which not only the chief towns on the river are noted, but also for which the State itself is justly celebrated throughout America. These brass works, notwithstanding their extent, are in reality productive of little harm to the river in a sanitary sense, though they have long since rendered the water of the stream wholly unfit for fish, the chief waste, sulphate of copper, being the most poisonous of any substance known to this form of life. Their refuse, aside from the sewage of their operatives, is almost wholly acids and oils, with a certain considerable quantity of the metals themselves dissolved by the action of the acids.

The refuse or waste materials differ somewhat in character, but

not much, according to the product of the various mills. Some of the manufactories produce only the sheet or bar brass from the copper and zinc ; others are engaged wholly in the production of the various metal goods from the alloy, while others manufacture both the alloy and the goods. Of the rolling mills proper there are a half dozen or more, located in Torrington, Thomaston, Waterbury, Seymour and Ansonia, and all of them are on a more or less extensive scale, employing about four-fifths of all the operatives engaged in the brass industries in the Naugatuck valley.

In the rolling mills, the acids, chiefly sulphuric, are used almost wholly for the removal of the oxidized scales on the surface of the metal after annealing. The metal, in the process of rolling, as is well known, becomes hard and brittle and requires repeated heating in order to render it ductile. After having been thus heated, the tarnished surface is again rendered clean and shining by immersion in diluted acid, a process technically called "pickling." The acid for this purpose is diluted in a large vat with from six to twelve times its quantity of water, and is constantly kept renewed by the addition of acid as its strength is weakened. This pickling vat may be emptied and renewed daily, weekly, or at longer intervals, depending upon different usages, and the different amounts of metal treated in it. In no case, however, am I aware of the recovery of any part of the acid in the metal salts, except in copper mills, where the copper crystals, precipitated from the saturated solution, are removed and thrown into the furnace to be again reduced to the metal state. After the metal has been allowed to remain in the pickling vat for a few minutes, it is removed and placed in another vat of running clean water, to remove the residue of acid. It is thus seen that all or nearly all of the acids employed reach the stream, carrying with them copper and zinc in solution. How much copper and zinc is thus lost I cannot say, but, from analyses, I believe that more than one-half of the acid becomes saturated, so that the amount actually going into the stream is at least thirty per cent. greater than the amount of acid used.

Almost the only other, and the worst, element of contamination from the rolling mills, is that caused by the oils used. The brass that is cast into bars, either for future rolling, or for use as such in other manufacturing purposes, requires the use of oil in the molds, but this, it is unnecessary to state, is all consumed. In the

process of rolling, however, lard, fish and whale oils in about equal proportions, are applied to the surface of the metal and the rollers. Some little of this oil, it is true, finds its way through and is consumed by the fire in the process of annealing ; but the great pressure of the rolls, it is readily understood, squeezes back this and causes it to flow off, for the greater part, into a trough or depression below, whence it is carried off by a stream of constantly flowing water. Very little of the mineral oils are used in rolling but chiefly for lubrication on bearings. My reports will not show accurately the amount of oils that are used, for, in some of the manufactories where I am pretty confident they must be employed to a greater or less extent, no reports were given of them. Several of the largest manufactories on the river did, however, give complete reports, from which it is evident that lard oil is the one chiefly used, but also whale and fish oils, as well as large quantities of the mineral oils. The report of one large firm will give a pretty clear idea of the amount used for the rolling mills. In this manufactory, for each one thousand pounds of metal treated or manufactured one gallon of "fish and mineral" oils was used and fifteen pounds of acid. Of course the lighter mineral oils are the ones least likely to get into the water and the ones least injurious.

The only other refuse from the rolling mills, aside from the sewage of the operatives, is derived from the cinders, scorïæ and other matter containing fragments of the metal which it is desired to save. This material, after having been crushed, is washed by water and the metals separated and again used.

Much the larger amount of brass used is composed of copper and zinc in the proportion of about six to four ; where the alloy is desired of a more granular or brittle character to adapt it for turning, rather than for ductility, a small part (two or three per cent.) of lead is added.

In the larger number of the manufactories the alloy is cast or turned, or otherwise formed into the various objects for which the metal is used, and here necessarily they undergo a different treatment, but one not essentially different so far as refuse is concerned, save in the use of oil. In most of these the acid is used to give some desired finish to the goods, and not merely to clean the surface. Sulphuric acid is still used in by far the larger quantity, but muriatic and nitric acids are also used in different ways and in different combinations to produce different effects.

The process is technically called "dipping," and the acid is used in full strength in small kettles kept at a boiling temperature. Before being dipped, the goods are treated with a solution of caustic soda to remove whatever grease may be adhering to them. After dipping they are washed in running water and polished. The dipping vats are kept at the required strength and the contents changed from time to time (several months before being wholly changed). The combination of these acids, their proper degrees of strength, and the proper methods of using them, require a certain degree of technical skill on the part of the worker. The metal salts are not recovered in this process, or, if so, are treated as refuse, so that the acids all practically find their way into the stream, together with a considerable quantity of the metals.

One hundred pounds of sulphuric acid used in the pickling baths require for saturation:

64.3 pounds of copper, producing 254 pounds of blue vitriol
 $[\text{CuO} + \text{H}_2\text{SO}_4 = \text{CuSO}_4 + \text{H}_2\text{O}]$.

66.3 pounds of zinc, producing 292 pounds of white vitriol
 $[\text{ZnO} + \text{H}_2\text{SO}_4 = \text{ZnSO}_4 + \text{H}_2\text{O}]$.

One hundred pounds of the same acid used in the hot dipping baths would require :

32.1 pounds of copper, producing 127 pounds of blue vitriol
 $[\text{Cu} + 2(\text{H}_2\text{SO}_4) = \text{CuSO}_4 + \text{SO}_2 + 2(\text{H}_2\text{O})]$.

33.2 pounds of zinc, producing 146.4 pounds of white vitriol
 $[\text{ZnSO}_4 + 7\text{H}_2\text{O}]$.

Considerable quantities of soap are reported from the latter class of manufactories, used for wire drawing and lubricating metals in press operations.

In the polishing of brass and iron considerable quantities of oil and grease are used, which are afterwards removed by potash in different forms, or other alkalies.

In all the brass manufactories, save the rolling mills proper, considerable quantities of cyanide of potash and ammonia are reported. These are used in electro-metallurgical processes, and all are wasted, together with some fatty matters taken up by the alkali. Goods to be electroplated are first treated with the alkali to remove what greasy matters may be adhering to the metal, and are then subjected to a dilute bath of acid to remove the oxides from the surface. They are then placed in a solution of

the cyanide of the potash, which acts as a carrier or agent in the deposition of the metal by the galvanic current.

Cyanide of potash, as is well known, is a virulent poison, and there is a sufficient quantity employed annually in the Naugatuck valley to destroy all the inhabitants of the United States, yet it is doubtful whether its contaminating influence is very great. The waste solution is more or less neutralized by acids and diluted in the drain pipes that carry them off.

The amount of aqua ammonia reported does not differ much in the various manufactories; from two-thirds as much in weight, as of the cyanide of potash, to an equal quantity are given.

IRON MANUFACTURE.

In the manufacture of iron, almost the only waste of importance comes from the pickling baths, used to give a clean non-oxidized surface to the metal. These pickling vats, as I saw them in one of the largest iron manufactories in the State, were elongated tanks holding several hundred gallons of dilute sulphuric acid, kept at a boiling temperature. The iron, in the shape of bars or long plates, was brought in, in bundles by suspended pulleys and immersed for a few minutes in the first vat, after which it was carried to a second, similar vat and likewise allowed to remain for a short time. It is next dipped into a vat of water to wash off the superfluous acid, and is then dipped into a fourth vat containing a heated solution of lime to neutralize the remaining acid.

The common practice is to add fresh acid to these vats from time to time during the day, as it is needed, and then to empty them all at the close of the day's work. A sample which I was kindly permitted to take at the Stanley works, of New Britain, from one of these pickling tubs a little before the contents were to be turned into the stream, gave the following, as stated by Prof. Smith:

"The 'bath solution' contains 5.66 per cent. of sulphuric acid, calculated as such, of which there is sufficient iron to unite with 87 per cent., leaving but 13 per cent. of the sulphuric acid in the free condition; or, .79 per cent. is the amount of free acid that the solution contains."

It is thus seen that four-fifths or more of the acid enters the stream as sulphate of iron (copperas). For every ton of acid

thus used, nine hundred pounds of iron are taken up in solution, producing four thousand pounds of copperas, to which is to be added four hundred pounds of free acid.

Tinning is a process that is often applied to iron goods, and especially to pins. It is done by boiling the goods to be whitened in a solution of cream of tartar with block tin or "tin crystals" for two or three hours. Practically all the waste here is the cream of tartar alone. In the manufacture of pins there is but little other waste; the pins are made by machines which complete them ready to whiten; after whitening they are stuck in papers. Hooks and eyes are whitened in the same way, or are covered with japan, a varnish composed of asphaltum, linseed oil and turpentine, of which there is little or no waste.

In the manufacture of metal buttons and similar goods, another source of waste, aside from that due to the ordinary use of the acids, is the japan varnish removed from tin plate. The articles are boiled in a solution of caustic soda, and the latter is washed off and carried into the stream together with the saponified varnish. Small amounts of stannate of soda probably go with the soda. In the baking to which the varnished articles are previously subjected the turpentine of the varnish is, of course, dissipated. This waste, however, cannot be very important. In a firm employing two hundred hands, not more than eight pounds of the alkali used daily were reported, and there consequently could not be a very large quantity of the varnish removed.

In the polishing of the metals, as has already been said, considerable quantities of oil and grease are used, which are afterwards removed by potash or other alkalies.

PAPER MANUFACTURE.

There are numerous paper mills on the streams examined, and I have been unable to obtain a full knowledge of the waste products of the very various raw materials used. In many of the smaller manufactories, especially on the Hockanum, heavy binder's boards are made, and as there is no bleaching nor much cleaning of the raw materials, there is little refuse. In others where the coarser papers are manufactured, and where jute, gunny sacking, old paper and colored rags are used, the organic waste may be as great or even greater than in those where the higher qualities of writing paper are produced.

In the manufacture of paper from rags, the first process that

the material undergoes is prolonged boiling under pressure in a solution of lime, by which the fibre is freed from the glutinous and other matter. Caustic soda may be used for this purpose, especially for the lower grades of paper, but in the mills in Connecticut lime is used either alone, or, for colored rags, with a slight addition of the soda. This solution of lime, after use, with all its impurities is turned into the stream, and the rags are subjected to long and thorough washing. It is seen that almost if not quite all of the lime thus gets into the stream; certainly but a very small part can remain in the fibre after several hours washing in running water. From ten to fifteen pounds are used to every hundred pounds of rags, and the extractive matter dissolved out by it, together with more or less of the fibre itself washed away, must add materially to the waste. The next process in the production of white or light-colored papers is bleaching. The material used for this purpose is called chloride of lime, but is really a combination of the chloride and hypochlorite, and even in the best qualities rarely has more than thirty-five per cent. of chlorine, the effective agent. The residuum of non-soluble parts is turned into the stream and the clear solution is applied to the pulp. To set free the chlorine, large quantities (a third or a half as much as the bleaching powders) of alum (or, in some places, sulphuric acid) is added to the solution. The pulp is allowed to remain in the solution for some time, when it is removed and very thoroughly washed, and the spent solution is discharged into the river. Again here it is seen that, besides the alum, nearly the whole quantity of the bleaching powder finds its way into the stream, either as lime, chloride of lime undissolved, or other chlorides, chlorine gas dissolved in the water, or hydrochloric acid. All this bleaching waste is highly injurious to fishes.

The refuse from this class of mills, though containing not a little organic matter from the filth, grease, etc., of the rags, cannot convey many germs, as they must be destroyed in the boiling processes, except such as are in the dust and refuse separated in the preliminary sorting out of the rags. The fatty acids, furthermore, are converted into insoluble lime soaps. A large part of the material discharged is lime, a substance that can hardly be said to contaminate the water, especially in New England, where the rivers are deficient in this mineral matter. For every million pounds of fine writing paper manufactured, from three to four hundred thousand pounds of solid refuse matter are discharged

into the river. According to the British reports on Rivers Pollution, from fine white rags there is about fifteen per cent. refuse; from colored rags, twenty-five per cent.; from esparto, forty; and from straw, fifty per cent.

WOOLEN MANUFACTURE.

On the rivers examined, the woollen manufactories are chiefly confined to the Hockanum. On the Naugatuck there are but few that manufacture from the raw material. In former years the woollen manufacture of this stream was much more important than it is at present. During the last year, even, one of the principal mills, that at Beacon Falls, has suspended indefinitely its operations, throwing out of employ some three hundred operatives. There is probably no class of manufactories in the State that pollute the streams more extensively, in proportion to their number, than these, their waste consisting, as it does, chiefly of organic material.

“Wool is always accompanied with other secretions, which issue from the skin along with it and lubricate it, rendering it more or less ‘yolky’ and giving it its peculiar and characteristic odor. These secretions differ enormously in amount between the different breeds, and vary greatly in character. Here it is sufficient to say that besides the oil that accompanies all wool, there is a complicated mixture of several chemical substances called together ‘yolk’ or gum (or sometimes ‘suint,’ the French name, German ‘Fetterschweiss’ and ‘Wollschweiss’), and which constitutes a large percentage of the unwashed merino wool. In extreme cases, and with certain fine-wooled breeds, these secretions constitute upwards of sixty per cent. of the unwashed fleece, diminishing in quantity as the fibres become coarser and the staple longer, and as the wool passes from the carding to the combing varieties, reaching its minimum in certain coarse-wooled native breeds. This ‘yolk’ is chemically a sort of natural soap, and is more or less soluble in water. In certain merino breeds, it is bred for, and thus its quantity has been relatively increased, and, when abundant, dirt and dust are more apt to cling to the wool,’ thus diminishing still further the percentage of actual wool fibre.”*

As is stated by Professor Brewer above, the composition of

* Prof. W. H. Brewer, Report of the National Acad. of Sciences, 1885, p. 84.

this "yolk" or "suint" is very complicated; in an analysis appended to his report, no less than thirty different chemical compounds are enumerated.

"It is the common practice with sheep growers in most countries before shearing to wash the sheep in running water of natural temperature. The yolk is partly soluble in cold water (more in hot), and if the washing is thorough, a part also of the oil and attached dirt is removed, the oil being somewhat soluble in a solution of the yolk, or else it and other dirt are mechanically removed with the soapy emulsion. No matter how poorly this washing by the wool-grower may be done, or how much impurity may be left in the fleece, it is known in the market as washed wool."†

Raw wool, of ordinary grades as it comes to the manufacturer, contains a third or more by weight of organic matter that it is necessary to remove. This removal is accomplished by scouring in alkaline solutions, chiefly soda ash, but also, in some of the mills at least, in urine, the latter being used, I have been told, to give a softer finish to the goods than can be obtained from the ordinary alkalies; that urine is not used more extensively in many of the Connecticut mills is due to the difficulty of procuring it. The amounts of alkalies returned by four different mills for each thousand pounds of raw material treated, are as follows:

Sal Soda	48	130	22	} 150
Soda Ash	75	32	50	
	<hr/>	<hr/>	<hr/>	<hr/>
	128	162	72	150

Of this amount of wool, treated by these and other detergents, probably at least three hundred pounds are removed.

In English mills, where urine is used extensively, in this first washing about five hundred pounds are used to the thousand weight, with about fifty pounds of alkalies. As my reports show, a much larger amount of the alkalies is used in the Connecticut mills, and but little urine, at least I was so told by several manufacturers. All this refuse goes into the stream. After rinsing the next process, in the manufacture of fine black cloths, is that of "wooding," in which the wool is steeped for a short time in a solution of indigo. This solution is used constantly with fresh additions and the only part that finds its way into the stream is the little that is removed from the wool in rinsing. From two of

† W. H. Brewer, *ibid.*, p. 87.

my reports I find not more than six or seven pounds of indigo given daily for each thousand pounds of raw material.

The next step is dyeing, in which the chief substance used is logwood. Four of the mills, from which I have reports of the dyestuffs and the raw material, give from three to five hundred pounds of the logwood for each thousand pounds of raw wool. With the logwood and other organic dyestuffs (fustic, camwood, madder, etc.) are used in different methods of dyeing, various mordants, the chief of which is copperas, the next argols (crude cream tartar), then bichromate of potash, alum, blue vitriol and tin crystals or muriate of tin. The wool after having been boiled in the dyeing vat for an hour or more is well washed in running water, and the contents of the vat turned into the stream. As a half or two-thirds as much dye material is used as the wool weighs it is very certain that only a small proportion is absorbed in the cloth. It is this waste material that discolors the streams so much, and which causes the chief complaints by the inhabitants along the streams. The amount of spent dye-liquor turned into the streams has been estimated at 6,000 U. S. gallons for each thousand pounds of raw material treated, by the British Commission.

After the wool has been dyed and dried it is prepared for carding by the reception of oil. One report gives about twelve gallons of lard oil for each thousand pounds of raw material; another about ten gallons. In English manufactories about one-tenth part by weight of sweet oil is given for the washed wool, which does not seem to be far from the quantity above given of lard oil. After having been spun, the thread may receive a small quantity of thin glue before weaving. This oil and glue is washed out and removed by the aid of soda and urine after weaving; the washings of course finding their way into the water. The remaining treatment is by soap in fulling the cloth, each piece requiring from twelve to fifteen pounds. This soap, where I have seen it, is of a pure white color, and in some of the reports it is given as "palm oil" soap.

The chief and worst polluting material in these processes is the natural grease and allied matter washed from the wool, and, next to this, the lard oil and organic dye-stuffs. The soap is much less important, and the inorganic chemicals harmless, or positively beneficial in counteracting the organic matter. It is to be understood, however, that not all the woolen mills manufacture from the raw material, or do it only to a small extent.

There are several manufactories, either in whole or in part, of old wool, and in which a different process is used, and one that causes less pollution—in a sanitary sense—than do the manufactures from the raw wool. The material here is of two kinds, that composed wholly of wool, and that, the larger part, containing more or less cotton. In the former the process is not very different from that employed in ordinary wool, the rags having been first reduced to wool by especial machines for the purpose. The washings and scourings of this material remove the grease and dirt of the rags, an important polluting substance it is true, but much less in quantity than the grease from the natural wool. In the larger proportion of rags, however, the cotton must be removed, requiring very different treatment, and a treatment that must largely, if not entirely, disinfect them. They are treated with a dilute solution of sulphuric acid in order to convert the cotton fibre into cellulose, as in the treatment of old rubber material. The acid is dried in and then washed out; the material is then dyed and manufactured by the ordinary processes. In the scouring processes alkalies and soaps are used as in ordinary wool, but there is proportionately more of the alkali and less of both in proportion to the amount of raw material treated.

COTTON MANUFACTURE.

The cotton manufactures on the streams investigated are either of gingham, or mixed wool and cotton goods, and are not extensive as compared with the other classes of manufactures. The wastes are both organic and mineral, but chiefly the former. The chemicals reported in the manufacture of gingham are as follows:

Sulphuric acid.	Pearl ash.
Nitric acid.	Stannate of soda.
Muriatic acid.	Brown sugar of lead.
Chloride of lime.	Indigo.
Sal soda.	Cutch.
Soda ash.	Sumac.
Bichromate of potash.	Logwood.
Alum.	Soap.
Copperas.	Aniline colors.
Blue vitriol.	Oils.
Lime.	

Of the mineral matters, the most important are lime, chloride of lime and bichromate of potash. Of the organic dye-stuffs, logwood.

It is very evident that all, or very nearly all, of the mineral matters are waste; with the exception of a small part of the mineral mordants, none of them are contained in the finished goods, and, consequently they are lost in the process of manufacture. This is especially the case with the lime and alkalies, the latter of which are used in small quantities. The acids are used in bleaching to counteract the effects of the lime. The soap is used, not to clean, but to soften the yarn in the process of dyeing, and in bleaching to neutralize the acids.

Bichromate of potash, alum, copperas, blue vitriol, stannate of soda, and the acetate of lead are mordants, used to impregnate the cotton, and with which the coloring matter unites to form a chemical compound insoluble in water. After the dyeing, the excess is removed by washing, and, to render the quantity absorbed absolutely insoluble, in calico print works it is customary to treat the goods to a hot emulsion of cow's dung. To what extent, if any, the dunging process is used in gingham dyeing, I do not know; but the process can be substituted by other processes not involving the use of dung.

The waste of the actual dye-stuffs in cotton dyeing is large, owing to the fact that the coloring principle forms, usually, only a small proportion of the crude stuffs as used. A firm employing three hundred operatives reported the annual consumption of logwood and the other dye-stuffs at over ten thousand pounds per annum, but this amount is very small compared with what is actually used in print works.

A much smaller proportion of organic matter is removed from the fibre in the treatment it is subjected to prior to weaving than is the case in woolen mills. It is estimated that about five per cent. in weight of the raw cotton is removed in bleaching, or in the prior treatment with soda. This waste is chiefly coloring matter and fatty acids, and is not putrescible, or is so only to a very slight extent, due to a very small quantity of albuminous matter. The removed matter will not cause a stench, if allowed to remain in a concentrated form exposed to the atmosphere. Even the larger mills on the Hockanum cannot contribute more than one hundred pounds daily, of this waste to the stream pollution.

Of the oils used in spinning, chiefly olive oil, at least one half is waste.

Here as elsewhere the aniline colors, when used, give but comparatively little waste.

To recapitulate: the acids, lime salts and alkalies are virtually wholly turned into the stream; at least one-half of the mordants are lost, and not far from the same proportion of the dye-stuffs used in the mills reported; all of the soap, one-half of the oil, and perhaps one-tenth of the anilines is wasted; and five or six per cent. of the raw material. When dung is not used, the putrescible waste is very small. Where starch is used, practically none is waste.

SILK MANUFACTURES.

There are but three silk mills in the region examined, but they are important, both by reason of their size, and their effects upon the streams.

Raw silk is covered with a so-called "gum," which it is necessary to remove that the silk may not have the elasticity and stiffness that it otherwise would. For the following in relation to this "silk-gum" I am indebted to Professor Johnson:

"Silk-gum (sericine) has the following composition in parts per hundred:

Carbon	44.32
Hydrogen	6.18
Nitrogen	18.30
Oxygen	31.20
	<hr/>
	100.00

"Its empirical formula is $C_{15}H_{25}N_5O_8$. It is similar to gelatine in chemical composition and characters, but has 6 per cent. less carbon, 1 per cent. less hydrogen and nearly $\frac{1}{2}$ per cent. more oxygen. It is destitute of sulphur, of which gelatine contains 0.56 per cent."

"It yields by action of hot dilute acids and oxidizing agents, products similar to, and in a great part identical with, those yielded by gelatine, albumen, etc."

This sericine constitutes from twenty to twenty-five per cent. of the raw silk, and is chiefly soluble in water. It may be removed by maceration, which produces a most intense and disagreeable stench, or it may, as is usually the case, be removed by scouring in a weak solution of soap. The soaps used are of the best

olive-oil kinds, and a very large quantity is required in large mills. The soap is dissolved in hot water, and, if the goods are not intended to be dyed, the silk is boiled in the solution for an hour or more; if the silk is required white, it is first treated for several hours in a warm solution. After scouring, the silk is thoroughly washed, and all refuse, both scourings and washings, are turned into the stream. Whether raw silk is treated as such, or in the cocoons before reeling, the processes so far as refuse is concerned, can not be very different.

The further processes are those of dyeing, which, so far as the stream is concerned, are wholly of secondary importance. But little oils are used, and the organic refuse is almost wholly the extractive matter of various dyewoods. Proportionally there is less waste of dye-stuffs from the silk mills than from those of other kinds of fabrics. Aniline colors here form a very important part, and of them, owing to their expensiveness, there is less waste.

HAT MANUFACTURE.

The waste products in the process of hat manufacture from fur are considerable in quantity, and of a kind that discolor very much the waters of streams that receive them. The character of these wastes, however, is of a kind that actually pollute the streams much less than would be supposed from the visible effects produced, and far less than is caused by the wastes from woolen mills, consisting as it does in Connecticut, chiefly of dye stuffs. Almost the whole of the hatting industry in this State, as is well known, is confined to Norwalk, Bethel and Danbury, which supply a large part of the hats worn in the United States, the only other manufactories of importance being those of New Jersey. In Danbury and Bethel, the two places under consideration in this report, the furs are, mostly, purchased ready prepared, and the most of the most deleterious process, so far as the stream is concerned, thus avoided. There are, however, two fur-cutting mills in Danbury, which furnish a large portion of the carreted fur for that city.

When the fur is cut, the first process that the skins undergo is that of washing. The skins, chiefly those of the coney, and nutria, are imported in bales from Australia, South America, and elsewhere, and contain a considerable quantity of foreign matter, in the shape of sand, dirt, etc. These skins are first placed in

large tubs of hot water and allowed to soak, after which they are washed, rubbed and rinsed, about twenty-five pounds of whale-oil soap being used to each thousand pounds of skins. The water thus used is run into the stream, and must contain a considerable quantity of offensive organic matter, the waste having a very whitish color. The actual quantity of polluting material cannot, however, be very great in Danbury, for altogether only about three thousand pounds are washed daily, and with seventy-five pounds of soap, not a very large amount of greasy matters can be washed out. I can give no estimate of what this quantity is, for such could only be obtained by carefully weighing the skins before and after washing, and then, too, the inorganic matter removed could hardly be determined without special examinations therefor. In the treatment of raw wool, a fourth to a third of the actual weight is washed away by the alkalies, but, in the furs, there can be but little fatty matter removed from the hair itself.

The other processes of shearing, and carreting do not require the waste of water, I was told. Carreting is that process which gives the shrinking or felting property to the fur required to bring it into the desired compact shape, and consists of a treatment with the nitrate of mercury. The process has long been known to have a very injurious result upon the health of the workmen engaged in the various hatting processes; not so great, perhaps, in the actual carreting as in the forming and pressing of the hats. Since the general use of stiff hats has come into vogue, there has been a decrease in the extent of mercurial poisoning, especially in Connecticut where comparatively few soft hats are made. The manufacture of soft hats requires in finishing a much greater use of the pressing iron on the damp felt, and a corresponding greater inhalation of the mercurialized vapor. Perhaps, also, the shellac now used prevents the vaporization of the mercury. Still, there is not a little mercurial poisoning among the operatives, especially in the hat-forming shops.

The dyers' waste liquors are constantly escaping from the factories, partly as rinsings from the hats, but chiefly from the dye-tubs themselves after they are no longer of sufficient strength to serve their purpose. There is a difference among the different manufactures as to the frequency which the dye-tubs are emptied, but there seems to be little difference in the amount of dye-stuffs used for a given number of hats.

Logwood forms by far the chief material used, inasmuch as

black hats are those chiefly worn; the other dye-stuffs are used in the production of different effects, or the lighter colors, but their effect on the stream is essentially the same. The following is a recipe given me by one of the manufacturers, and differs only in unessential details from those used by the hatters in general:

Bichromate Potash	1½ lb.
Argols.....	1½ lb.
Madder.....	2 lbs.
Cudbear.....	¾ lb.
Blue Vitriol.....	4 oz.
Logwood (chips).....	60 lbs.
Fustic.....	3 lbs.
Madder.....	1 lb.

The above is the quantity required for the dyeing of twelve dozen stiff hats. Soft hats require rather a larger quantity, and the extract of logwood is used in place of the chips, about ten pounds being required for each gross of hats. The logwood chips, after the coloring matter is extracted, are either burnt or thrown upon the ground. As ten pounds of the extract takes the place of the chips in dyeing the soft hats, it is evident that five-sixths of the logwood chips is non-coloring matter. Alum, in the proportion of three ounces to the dozen hats, is used by some hat-makers.

The manufacture of wool hats, which is carried on only to a small extent, produces proportionally a much greater degree of contamination. The treatment of the material is here not much different from that in woolen mills, except in the use of oils. The raw wool is scoured with alkalies to remove the natural greasy matters, and afterwards treated much like the ordinary fur, the chief refuse being the logwood and similar dye-stuffs.

The hat-forming shops, of which there are two or three in Waterbury and Bethel, receive the carreted fur from the different manufacturers and beat it loosely into conical bags by machinery. The fur is first placed in a blowing or separating machine, where it is finely and evenly mixed. It is then removed, weighed out into proper amounts, and run through a machine that beats it loosely into large conical bags. Next, the bags are dipped in water and rolled several together in a cloth to give sufficient consistency to handle, and are then sent to the hat-shops. The only refuse, in forming, it is thus seen, is that carried off in the water in which the bags are dipped, and must be small in quantity.

The next process these conical bags undergo is that called sizing, and consists of repeated dippings in hot water and rolling with the hands, which produces the shrinkage or felting of the material necessary to bring them to the required size. The water in which they are dipped, carrying with it a small amount of refuse, is turned into the stream. After drying and shaving to remove the projecting fur they go into the dyer's hands, where they are subjected to the ordinary vegetable dyes, such as logwood, camwood, madder, fustic, hypernic, etc., the refuse of which, chiefly logwood, forms almost the whole of the contaminating waste, the treatment with shellac, drying, pressing, and curling producing little or none. The short particles of fur shorn from the hats, with other dry waste, is used wherever practicable, or when not, is usually destroyed, used for fertilizing material, or otherwise disposed of. At the most, but little of it gets into the streams.

RUBBER MANUFACTURE.

In the ordinary manufacture of rubber there can be but little waste of a deleterious nature. The only use of water is in the washing of the raw gum, to remove the adhering dirt; and to cool the rolls when they get too hot. The bisulphide of carbon is about the only chemical used, and this for a solvent to cement the different pieces of rubber; there can but little of it get into the stream.

In the manufacture of reclaimed rubber goods, there is a source of considerable refuse in the treatment the material undergoes in the removal of the vegetable fibers contained in it. As in the treatment of cotton and wool shoddy material, the old rubber is soaked in a dilute solution (13° Beaumé) of sulphuric acid; this attacks the vegetable fiber, converting it into the soluble cellulose, which, with the spent solution is washed out and turned into the stream together with a quantity of alkali (about ten per cent. of the acid), used in neutralizing the acid.

EXAMINATION OF STREAMS.

PIPER'S BROOK.

Piper's Brook is a very small stream, that has obtained an unsavory reputation far out of proportion to its size, owing to its

excessive pollution by the city of New Britain. The brook is one of the two tributaries that give rise to Park river, about four miles from its mouth in the city of Hartford. The head waters of the brook are almost wholly in the town of New Britain, the lake that supplies one of its branches being just within the town of Farmington on the north. At Elmwood, it unites with a large branch from the north, called on the maps, Trout brook. Between its origin at Elmwood and its confluence with the north fork, Park river receives two very small rivulets of a mile or two in length. Above Elmwood there is a branch, three miles in length, emptying from the south at Newington, and one mile below the opening of the New Britain sewer is the confluence of the two head-water branches, one from the north, the larger, known as Luther's brook, and the other from the city of New Britain, Piper's brook proper, and the source of nearly all the contamination of the stream. The drainage areas are nearly as follows :

Piper's brook above confluence with Luther's brook	5 $\frac{1}{4}$ sq. miles.
Brook above confluence with Trout brook---	25 " "
Park river (south fork) with all tributaries ..	56 " "

The above areas will represent approximately the comparative natural flowages of the different parts of the stream ; that is, above the confluence of Trout brook there should be five times, above the confluence at Parkville, eleven times the amount of natural flowage that there is below New Britain. The actual disproportion, however, is not so great, for the sewage of New Britain is added, diluted in a million or more gallons of water drawn from another drainage area or pumped from wells.

This entire drainage area includes, besides that of the town of New Britain, which will be spoken of further on, nearly all of the towns of West Hartford and Newington, with a little from Wethersfield and Farmington. The population of West Hartford was 1,828 in 1880, of Newington, 934. The number of school children in these two towns had increased, together, about sixty-five in the following six years, so that the present population is a little in excess of two thousand, which may be taken as an approximate estimate of the drainage population of Park river, outside of New Britain. In the drainage area in Farmington and Wethersfield, the number of residences indicate a drainage population of less than two hundred, which is rather

more than compensated for by the population in West Hartford draining into the north fork of Park river.

The drainage population in New Britain cannot be accurately got at. As will be seen from the map, the western part of the town drains into the Quinnipiac, the southern part, through Shuttle meadow brook, drains into the Mattabesset near Berlin, and thence into the Connecticut at Middletown. More than half of the area, and a considerable more than half of the population, however, find drainage into Piper's brook.

From the center of the Piper brook sewage area of New Britain to the confluence of the streams at Parkville, the distance in a straight line is almost eight miles. Following the tortuosities, as nearly as they can be measured on a large map, the actual length of the stream between these same points, is eleven and a half miles, and the distance to Newington Junction not over four and a half miles. The number of residences located upon the recent Driving map of Hartford and vicinity, within one half mile of the stream between the city of New Britain and the confluence with Trout brook, is about ninety, chiefly situated at and below Newington Junction, where many of them are much closer. The center of the village of Newington proper is a little less than one mile from the stream.

As has been already said, New Britain furnishes very nearly all of the contamination of the stream, and my investigations have been almost wholly directed towards ascertaining the quantity, quality and effects of the polluting material here discharged. First of all I would say that my examinations lead me to the belief that this city is among the best sewered ones in the State. A half, if not more, of the population are connected with sewers, and the natural facilities are such that the main trunk sewer is kept constantly flushed out with water and with sufficient fall to keep it clean. The city is situated on a moderately undulating surface, at the junction, as has already been stated, of three drainage areas, the principal of which is the Piper brook, comprising the northern, more populous half.

The population of the town is given at 13,959, of the city, 11,800 in the census of 1880; at present the estimated population of the city is 18,000, showing about the same ratio of increase as that of Waterbury. The southern part of the city is more thinly populated and has several sewer connections with Shuttle meadow brook. The extreme northwestern drainage will be into

a tributary of the Quinnipiac; I believe there are no sewers at present discharging this way, and it will be many years before the growth of the city will require any such sewers to be constructed. In which of the two principal drainage areas the city will probably have its greater growth in the future, I, of course, cannot say; Mr. Rice, the efficient city engineer, thinks it will be in the southern one, but I cannot resist the conviction that it will be fully as great in the northern one. The present sewer population of the Piper brook area is given at eight thousand by Mr. Rice. If the city increases at the rate of fifteen hundred a year, as it most probably will, the sewage discharge into Piper's brook cannot increase more than a few hundred. The sewage will certainly steadily increase, but it is not apparent that this increase will be very great.

In order to get at a just estimate of the actual sewage now discharging into Piper's brook from New Britain it will be necessary to take into account that of the manufactory employees, the number of whom is given in the following list, taken from the manufactory returns.

	Whole No. employees.	No. using water-cl.
Malleable Iron Works.....Iron castings	60	0
Stanley Works		
Wrought iron and hardware		300
Russell & Erwin Mfg. Co.....Builders' hardware ..	800	800
Landers, Frary & Clark, Ætna Works.....		
Table cutlery ..	400	300
Landers, Frary & Clark, Hard- ware Works		
General hardware....	150	100
Humison & Beckley Mfg. Co....Hardware and pocket cutlery	80	80
Brand Mfg. Co.....		
Brass and iron	75	75
P. & T. Corbin.....		
Brass and iron		600*
Stanley Rule & Level Co. ....Carpenters' tools	400	400
Union Mfg. Co.		
Pumps, lathes, hard- ware	150	0
New Britain Knitting Co.....Knit shirts and drawers of wool and cotton, ..	340	340
North & Judd Mfg. Co.		
Iron		100*
Total.....		3,075

* Estimated.

Of the three thousand employees who sewer into the brook, Mr. Rice thought that two-thirds lived in sewered regions, and would thus be included in the eight thousand already given. I think

this number will certainly include all such persons, as it is a larger proportion than the sewered population bears to the entire population of the city. We may, hence, take nine thousand as the entire number of the sewage population whose discharges enter Piper's brook. The actual daily amount of excreta from this number of people will be about twenty-five hundred pounds of fæces and thirty-five hundred gallons of urine.

The following list of the chemicals reported by the above manufactories will enable us to estimate what other refuse enters the sewers. It is unnecessary to mention that these manufactories are those only of New Britain which discharge their refuse into the Piper brook sewer.

	Amount in pounds.	Estimated waste.	
Sulphuric acid	392,525		
Muriatic acid	18,248		
Nitric acid	49,530		
Total acids		460,303	420,000
Lime	11,800		
Chloride of lime	12,371		
Total		24,171	20,000
Soda ash	7,288		
Sal soda	74,000		
Carbonate of ammonia	50		
Potash	18,582		
Aqua ammonia	500		
Total alkalies		100,420	95,000
Hyposulphite of soda	1,473		
Cyanide of potash	8,700		
Sulphate of potash	170		
Sulphate of ammonia	881		
Total other alkaline salts		11,424	9,000
Copperas	100		
Blue vitriol	6,731		
Sulphate of zinc	751		
Total metal salts		7,582	7,000
Alum		300	300
Cream tartar (acid tartrate potash)		2,670	2,500
Soap		29,159	25,000
Aniline colors		500	50
Logwood, etc.		6,500	2,000
Totals		643,029	580,850

I think my estimates of the actual wastes are understated ; it is very probable that full six hundred thousand pounds enter the stream annually. These chemicals, moreover, do not constitute the whole waste of the manufactories ; with the acids are carried

away large quantities of metals and with the alkalies greasy matters.

The analysis already given of the spent vat solution, a specimen of which was kindly furnished me by the Stanley Works, shows that 87 per cent. of the acid was saturated with iron. At least four-fifths of the sulphuric acid used in New Britain is employed in the pickling baths for iron. Accepting seventy-five per cent. as the average degree of saturation in this kind of work, and we will have about two hundred and forty thousand pounds discharged as sulphate of iron (copperas).

The chemical composition of copperas, $\text{FeSO}_4 + 7\text{H}_2\text{O}$, will give for every hundred parts so saturated 57 parts of iron or about 275 parts of copperas; or, over six hundred thousand pounds of hydrated sulphate of iron (copperas) altogether. This seems a very large quantity, but, unless there is much more waste of the free acid than is indicated by the sample which was taken in my presence, the sum must be pretty nearly the correct one. Of the remaining acid discharged, I cannot give so close an estimate. Much of it is used in dipping vats for brass goods, and the resulting salts of copper and zinc (nitrates, chlorides and sulphates) with some additional corresponding salts of iron, will probably increase the total of metallic salts wasted one hundred thousand pounds.

The lime is used chiefly to neutralize the acid after pickling; it practically all enters the stream as the sulphate of lime. The chloride of lime, chiefly used in bleaching, enters the stream almost wholly as lime, or sulphate of lime, most of the chlorine having been given off.

The alkalies are almost wholly used as solvents of fatty matters. As the amount of fatty acids required to saturate caustic soda or potash is six or seven times as great as the quantity of alkali, it is evident that a large amount would be thus taken into the stream if the alkalies were fully saturated. But they are not fully saturated, and, furthermore, as three-fourths of what I class here as alkalies is composed of the carbonate of less strength (about a fifth) than the caustic soda, it will be very difficult to form even an approximate estimate of the fatty refuse. In one place only can I give an estimate of this kind of waste; in the washing of wool at least seventy-five pounds daily must be scoured away. The other alkaline salts, including the cream of tartar, can carry away but little other matter.

En resumé, I would give the actual discharges of the manufactory about as follows :

Metal salts	700,000 lbs.
Free acids	100,000
Lime salts	35,000
Alkali salts	100,000
Soap	25,000
Fatty matters	100,000
Vegetable refuse (from cotton, etc.)....	20,000
Total.....	1,050,000

The last two are deleterious, the vegetable matter but slightly, the animal matter much more so. I am not aware that pure soap suds are putrescible, nor would the fatty acids from the greasy matters when taken up by the alkalies be so ; but we must remember that such alkaline compounds may be broken up by the mineral acids or salts, leaving the insoluble acids free. The lime is beneficial. The metal salts and acids are all well known as excellent disinfectants, and the claim has been repeatedly made that they are sufficient in quantity to disinfect the organic matter of the sewage—a claim that facts disprove.

The daily average of water consumed in New Haven during 1886, as kindly given me by the Secretary of the New Haven Water Company, Mr. E. I. Foote, was 8,221,017 gallons, or over 100 gallons for each individual of the entire population. In New Britain there is probably a less consumption per capita, but there cannot be much less than one million gallons turned into the Piper brook sewer, aside from the manufactories. These consume large quantities, drawn mostly from the city water works, but at least four draw their water largely or entirely from wells, in one case pumping 90,000 gallons daily.

Piper's brook takes its origin in a spring very near the north-west part of the city. It is a not very rapid stream before it reaches a little below the Stanley Works where it is collected into a large open pond of a number of acres in extent. At the lower end of this reservoir, at the Russell and Erwin Works, it is turned into the trunk sewer, which passes through Main street and out Hartford avenue, to finally discharge its contents near the city line in the old bed of the brook.

On July 2, careful measurements, made, however, by cross-sections and determinations of velocity, gave, for the flowage above the Stanley Works, 129,500 cubic feet as the daily amount

(968,660 U. S. gallons). Measurements made a few hours later of the stream a short distance below the outlet of the sewer, gave 510,000 cubic feet (3,814,800 gallons), a difference of 380,500 cubic feet (2,846,140 gallons), which must represent the amount added by New Britain sewage, manufactory refuse and natural drainage. The following measurements are taken from a table published by Dr. B. N. Comings ; they were made by the City Engineer of New Britain, Mr. A. W. Rice.

	Gallons at outfall.	Gallons above Stanley Wks.	Difference.
Feb. 10, 1887----	5,067,000	1,400,000	3,667,000
“ 15, “ ----	23,526,000	8,400,000	15,226,000
May 6, “ ----	4,200,000		

A further measurement by Mr. Rice and given by Dr. Comings (Report, etc., p. 14), made on May 28, 1887, gave 2,800,000 gallons as the outfall. The high waters during the summer prevented any true measurement of the summer flowage. A measurement of the outfall made by me in October gave a little less than 3,000,000 gallons.

Taking the lowest measurement, that of 2,800,000, made by Mr. Rice in May, we cannot expect a very great decrease for the lowest summer weather flowage, for the reason that the sewage discharge and water used in the city will be greater in quantity during the hot summer months, while the decrease from drainage will not much more than compensate for it.

During ordinary low summer flowage at least a half of the discharge at New Britain will come from the house sewers and manufactories; during very low flowage I think this quantity will perhaps reach three-fifths. Certainly the drainage from five or six square miles during dry weather can not exceed one million gallons without being very much greater than in other New England streams.

A flowage of 2,800,000 gallons per day is at the rate of 260 cubic feet per minute, sufficient to carry away the sewage of two thousand people, according to Mr. Hering, before reaching the limit of contamination. But there are nearly five times that number now sewerage into the brook, and which would require a stream of at least 13,000,000 gallons.

A measurement of the flowage at Newington Junction, made October 29, gave 1,300,000 cubic feet or less than ten million gallons, and it seems to me very probable that the actual flowage here during August and September of dry summers may not

reach over seven million gallons. The pollution here, then, is from thirty to fifty per cent. beyond the sanitary limit above given, provided that there has been no purification during its flow of four and a half miles, or by the inorganic discharges of New Britain. At Newington, the brook coming in from the south will increase the dilution probably nearly to the desired limit.

Upon the whole, I think the facts demonstrate that the sewage contents of the stream are very excessive in proportion to the water contained at least as far as the confluence of Trout brook.

I have already stated that facts disprove the claims that have been frequently made that the disinfectant materials from the manufactories are sufficient to counteract the effect of the sewage pollution. To directly test this claim I collected specimens in the course of the stream at different times for bacteriological analysis. The specimens were collected with the most approved precautions, and were carried on ice in the shortest possible time to the Yale Medical School bacteriological laboratory, in charge of Dr. Wm. Daggett. The numbered specimens were analyzed by him without any knowledge of their source, and the results are given below. This method of analysis has not, to my knowledge, been applied on an extensive scale to such investigations as the present, but I am thoroughly convinced of their utility. In order to test the accuracy of such analyses I several times collected two or more specimens under the same conditions, and I found in strongly contaminated waters a frequent and sometimes considerable discrepancy, which was not the case when the water was comparatively pure. I can only account for it by what seems very probable, that water containing a considerable amount of suspended matter does not have the bacteria evenly disseminated through it. A single small particle of fæces might contain enough germs to vitiate the average for the water.

BACTERIOLOGICAL ANALYSES OF PIPER'S BROOK AND PARK RIVER WATERS.

MADE BY DR. W. G. DAGGETT.

	No. germs per c. c.
No. 1. 100 yds. below sewer, New Britain, July 14, 5 P.M.,	17,080
No. 2. Newington Junction, July 14, 4 P.M.	1,184
No. 3. Newington Junction, July 14, 4 P.M.	480
No. 4. 200 ft. below sewer, New Britain, Sept. 26, 10 A.M.	5,520
No. 5. 200 ft. below sewer, New Britain, Sept. 26, 5 P.M.	5,040

I was told that the pickling vats were only used at varying intervals. It is evident that by far the larger proportion, if not nearly all, of the disinfecting refuse is carried down the stream during the night, and the sewage of the day time receives practically little. It would be worth the experiment, if the different manufactories would accede to it, to try for some period of time, the effect of its discharge in the morning when it is most needed. I by no means wish to underrate the destructive power of the metal salts; a ton of copperas, if applied directly to two or three tons of faecal matter, would prevent all odor arising. The trouble is here, that the iron does not get mixed with the sewage sufficiently; it is too intermittent in its discharge.

So far, we have spoken of what the polluting material is and what its effects might be. Let us consider what the actual condition of the brook is, as indicated by the senses. I have not seen it at its worst, though probably when not far from that condition. In my notes I find of the stream above the Stanley Works, written July 2: "Water clear, and to all appearances, pure." On the same day, of stream below the outlet of the sewer: "Water one-half mile below outlet has a distinct, but not very strong mawkish sewer odor, appreciable some little distance away, is of a thick dish-water appearance, filled with organic matter in abundance, with numerous fragments of fæces, varying in size from a pea to an English walnut. The ground near the stream is covered with numerous evidences of an overflow, the odor of which is distinct a hundred or more feet away." I have observed the stream in its first four miles on eight different days, and on none has there been much difference in its appearance. Other observers have described it at times as much darker in color, due, doubtless, to the manufactory discharge. I regret not to have seen the stream late in the evening, when such discharges most usually occur.

Following the stream, the fæces are readily traced for a couple of miles, gradually becoming more comminuted, and the water of a more homogeneous, whitish color. At the confluence of Luther's brook, the pure clear water forms a very conspicuous line of demarcation for a considerable distance. At Newington the water has become clearer, but still is very visibly contaminated; stones on the bottom a foot or more from the surface are visible, and the fragments of organic matter small and only just appreciable; still, here, I thought I was able to recognize human fæces by their physical characteristics. This was the first place where I could muster

sufficient resolution to taste the water, which I did several times. I could not recognize any peculiar taste whatever, and had one his eyes closed, he could not distinguish it from ordinary brook water with ordinary organic matter in it. Only at one time did I perceive any odor here, but the times of my visits were all on bright sunshiny days. Below New Britain, the rocks in the stream and the banks were covered with a rank organic coating, very different from what would be seen in an ordinary brook. So much for my own observations. I append the following from trustworthy, though perhaps in some cases prejudiced observers.

Mr. L. S. WELLS, two miles below New Britain.—“Has never seen cattle drinking water. Has perceived a distinct odor in summer season as well as winter, near the stream. Five or six cows, pasturing where they have access to the stream, have had garget. The overflow in his pasture in high water is perhaps for twenty or thirty rods, which produces an early growth in spring upon which the cattle feed. Thinks he will fence off stream for security.”

Mr. FRANCIS, Newington.—“Where water overflows does not materially injure grass, but where it stands for any length of time will kill it. Cattle will not drink the water, except from compulsion; some cattle can get no other water. On close mornings the smell from the stream is very distinct.”

Mr. STODDARD, Newington.—“Cattle will drink the water and do so, but will drink pure water in preference. On damp, foggy mornings there is a strong odor; odor especially strong over the stream at night time. After freshets the smell is very strong, reaching to the house; the water when standing in pools after freshets is very offensive. Water does no good to grass land, but on the contrary thinks it does harm. Eels are occasionally caught, but no other kind of fish.”

Mr. STARR, Newington.—“The odor is very disagreeable, so strong that it clings to one's clothing in passing through it at night time. Has lived close to stream and is sure that there was no odor before the use as a sewer. Cows will not drink it when they can avoid it; will pass through the stream to get water elsewhere. Where it overflows, grass will die. No fish in the stream, at least of any size.”

Dr. DURAND, Newington.—“Thinks there is more sickness in the immediate vicinity of stream. At night time there is an odor, but is not sure that it arises from the stream. Is not always there, but is noticeable on damp foggy nights. Can not trace any cases of typhoid fever to this cause.”

Mr. WHITTLESEY, Newington.—“Cattle will drink water. There is a distinct smell caused by the water, especially on hay. It destroys only small quantities of grass, only where it rests in pools. Can not say that it causes miscarriages to cows. Can not say that it causes injury to health. Fishes coming up the stream have been known to die, and be thrown up on the banks in wind-rows.”

The statements of others questioned upon the subject scarcely differ from what has been already given. It is significant that several boys whom I met, gave in all seriousness the name of the stream as the “Sewer,” and that, virtually, is what it is, a stream of diluted sewage in summer. I observed minnows in the stream at Newington on July 14. There was certainly no offensive taste to the water at Newington during the present year, and I feel very skeptical of the assertions that cattle will not drink the water. Cattle, as is well known, are not very choice in their drinking water. The creameries along the stream refuse to take milk from cows which drink the water, more, I think, as a precautionary measure, fearing an injury to the sale of butter known to have been produced from such cows.

To sum up, my conclusions are as follows :

The stream is excessively polluted to and beyond Newington ; this pollution, while it may be, and probably is, modified by the manufactory refuse, is not purified by it, at least before it reaches Trout brook. The germs from human refuse are not destroyed, but exist in abundance for five or six miles and are quite capable of conveying typhoid fever and similar diseases.

No specific cases of disease have been traced to the stream ; it has not been the cause of malaria, but has perhaps influenced the severity of this and other diseases, among those living in the immediate vicinity of the water.

Cattle will drink the water, and it must be unwholesome for them, though proof that it actually causes disease among them is wanting.

The use of the stream as a sewer has caused actual money damage to the inhabitants living in the vicinity of it.

The pollution of the stream will steadily, but slowly increase, unless preventive measures are instituted.

The people of Newington have just complaint against New Britain for injury to real estate, and, perhaps, for injury to health. How much the city has been a damage to them in this

respect, I cannot say ; too many modifying circumstances are involved to decide the amount save in a court of law.

The city of Hartford has no grounds for complaint against New Britain so long as her own vile system of sewerage disposal remains unchanged, and, even then, the amount of pollution in the stream as it enters the city, in comparison with the amount of water, would not be alarming, though very desirable to modify.

As to what should be the remedy, I am not qualified to express an opinion at present. Only this should in justice be said, harsh measures are uncalled for, and would be unjust, on the part of the State. The State itself is largely to blame for the present result, and should bear its own share of the responsibility.

New Britain has expended a large amount of money in the erection of a good sewerage system, a sewerage that would not have been effected had the city been debarred from making use of Piper's brook as a conduit. The city has largely bettered her own sanitary condition at the expense of the population below, and undoubtedly more sickness and death have been prevented than has been caused, still, this is not sufficient reason for invading the rights of others, and cannot palliate the great evils of river pollution, for such evils are *perpetual* and increasing, while the evils arising from delay in finding other means of disposal are only *temporary*.

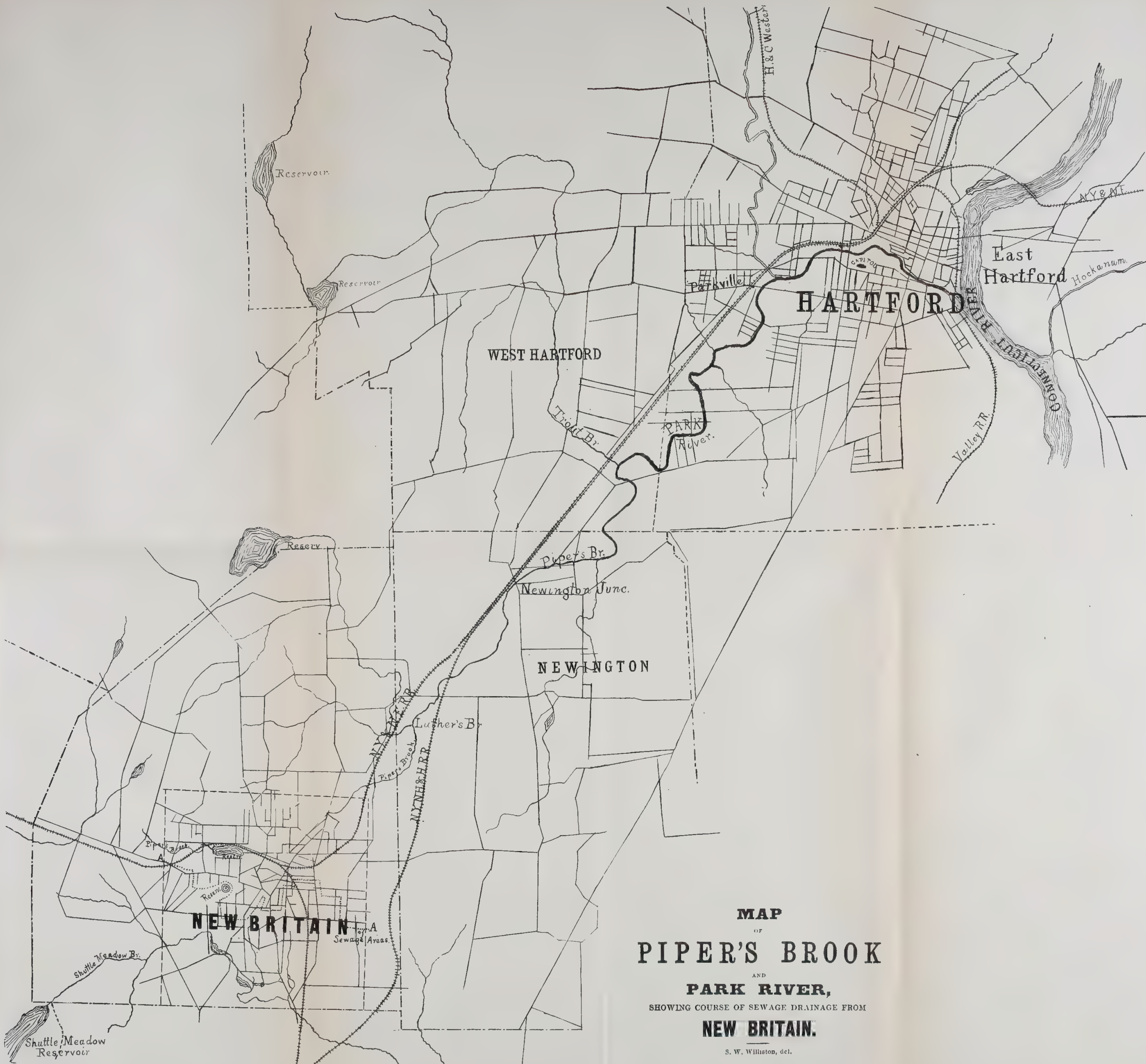
CHEMICAL ANALYSES OF PIPER'S BROOK AND PARK RIVER WATERS.

By HERBERT E. SMITH, M.D.

In judging as to the fact of contamination of a specimen of water from the chemical analysis, it is necessary to bear in mind that the figures usually presented are of unequal value and of different significance. These points have been recently discussed in the Reports of this Board* so that it is necessary here, only to call attention to certain facts which have a bearing on that class of waters, to which the samples that form the subject of this report belong, i. e., the class of surface waters, or such as are found in ponds and running streams.

Total Solids.—This factor represents the total quantity of dissolved solid matter, and in the purer surface waters is

* As by Dr. Wolff in Vol. VIII.



MAP
OF
PIPER'S BROOK
AND
PARK RIVER,
SHOWING COURSE OF SEWAGE DRAINAGE FROM
NEW BRITAIN.

S. W. Williston, del.

Scale. 1 1/4 inch to the mile.

commonly under 100 parts in one million, frequently much under this figure.

Loss on Ignition.—This represents the volatile solid matter and in general, increases with the increase of organic matter, but the factor is of rather uncertain value.

Chlorine.—In water not in proximity to the sea or salt springs, the chlorine is commonly under 5 parts per million, and an increase is evidence of contamination from animal sources (excreta of animals, residues from manufacturing processes).

Free Ammonia.—Surface waters may get ammonia from the rain, or from the decomposition of nitrogenous organic matter, (excreta of animals, extractive matter from plants, etc.). The purer waters frequently contain less than 0.01 of a part in a million, generally less than 0.10 of a part.

Albuminoid Ammonia.—This is ammonia evolved during the analysis by the action of reagents on nitrogenous organic matter, and is therefore, in a degree, a measure of this kind of defilement (animal excreta, vegetable extractives and manufacturing refuse).

If excessive, it is objectionable when from any source, but especially so when of animal origin. In the purer waters it varies from 0.02 to 0.10 of a part per million. Many streams which yield albuminoid ammonia much in excess of these figures, however, are used as sources of public supply in our cities and towns, the contaminating material being of vegetable origin.

Whether the albuminoid ammonia obtained from a sample is of animal or vegetable origin, must be decided from a consideration of the quantities of chlorine, nitrites and nitrates with which it is associated, and the known surroundings of the supply.

Oxygen Consumed.—This factor is the amount of oxygen which a given amount of the sample abstracts from potassium permanganate, when treated with this reagent for a definite time and at a definite temperature. The oxygen is abstracted by the chemical action of the nitrites and organic matter present. As the nitrites may be separately determined, this factor is another measure of the contamination by organic matter, not, however, necessarily nitrogenous organic matter. The conditions of the test vary so much with different analyses, that no general averages can be given.* The analyst derives quite as much

* As performed in the Chemical Laboratory of the Yale Medical School the New Haven public supply consumes 2.5-3.5 parts of oxygen per million during the summer months.

information from this test by observing the progress of the reaction, as by a consideration of the numerical results.

Nitrogen as Nitrites and Nitrates.—Nitrates may be introduced into water as a residue from manufacturing processes, or by the oxidation of nitrogenous organic matter. Nitrites are intermediate products of this oxidation, or are formed by the deducing action of organic matter on nitrates. Except the small trace from rain, these salts are not found in water contaminated from vegetable sources only, nor in fresh sewage, unless added in refuse from manufacturing. Hence their presence is an indication of former contamination from animal sources.

In the purer waters from cultivated districts, nitrites are absent or are present in mere traces only, while the nitrates may vary from 0.01 to 0.5 parts per million. It is chiefly in filtering through the ground that nitrites and nitrates are formed, hence rivers contaminated with sewage may show no increase of these salts, while they are very abundant in the ground water of contaminated soil.

Sulphates.—These salts may be found in some districts because of certain peculiarities of the soil, but in this region the purer river waters contain them in traces only. Any considerable quantities of sulphates, therefore, are indicative of contamination, and as house sewage contains them in but small amounts, they are indicative of contamination from manufactories.

Hardness.—Hardness is generally due to the presence of salts of calcium and magnesium, rarely, other salts and free acids, and is measured in the equivalent amount of calcium carbonate. When not due to the geological formations from which the water is collected, it is introduced in the refuse of manufactories.

Sample 1 shows the condition of the brook before it receives the New Britain sewage. Organically, it will be observed, it was of fair purity, but it showed evidence of some, though small, past contamination (total solids, chlorine, sulphates and hardness).

No. 2 was a sample of the city water, which forms the basis of the sewage. It was of good purity, except for the rather large organic contamination (albuminoid ammonia and oxygen consumed), which is, however, of vegetable origin (small chlorine and large loss on ignition). This sample was taken later in the year than the following, but at a time when this kind of contamination is commonly greater than in the summer months.

TABLE I.*

		Solids.		Chlorine of Chlorides.	Ammonia.		Oxygen consumed. In 30 min. at 100° C.	Nitrogen of		Sulphates as H_2SO_4	Hardness as $CaCO_3$	No. of germs per c. c. given by Dr. Daag's test
		Total.	Loss on ignition		Free.	Albuminoid.		Nitrites	Nitrates			
1	New Britain City water, drawn from faucet at 365 Main st., 5.15 P.M., Oct. 20th. Somewhat turbid, deposited scanty sediment, filtered clear, yellowish.	60.	32.	3.2	0.04	0.24	5.5	0.	0.08	trace	25.	----
2	Piper's Brook, just above the Stanley works, Oct. 20th. Clear, sediment scanty, colorless.	120.	42.	9.0	0.01	0.07	2.9	0.	0.28	3.5	70.	----
3	200 feet below mouth of sewer, New Britain, Sept. 26th, 10 A. M. Very turbid, flocculent sediment, filtered slowly, filtrate not clear, yellowish.	280.	124.	26.0	6.00	1.90 +	22.3	0.5	0.34	45.9	105.	5,520
4	Same locality as No. 3, 5 P. M., Sept. 26th. Turbid, flocculent sediment, filtered clear, slightly yellowish.	270.	104.	22.5	4.00	1.30 +	12.3	0.6	----	69.9	110.	5,040
5	Just above confluence with Luther's Brook, Sept. 26th, 12 M. Turbid, much flocculent sediment, filtered clear, slightly yellowish.	260.	90.	24.0	8.00	0.89 +	11.5	1.2	----	62.2	85.	8,064
6	Newington Junction, Sept. 28th, 3 P. M. Turbid, little sediment, filtered clear, slightly yellowish.	186.	60.	13.0	3.00	0.20	3.1	0.55	1.50	32.0	90.	4,320
7	Park River at Parkville, above sewer, Sept. 28th, 12 M. Clear, with a little sediment, yellowish.	174.	60.	11.0	0.13	0.12	2.4	0.45	0.84	26.8	90.	60
8	Park River, below Capitol bridge, Hartford, Sept. 28th, 10 A. M. Turbid, some flocculent sediment, filtrate not clear, yellowish.	156.	58.	15.0	3.50	0.40	6.3	0.80	0.53	16.4	75.	4,320

* Figures represent milligrams per litre, or practically parts per million by weight. To convert milligrams per litre into the equivalent in grains per U. S. gallon, multiply by 0.0684; in grains per imperial gallon, multiply by 0.07.

Nos. 3 and 4 show the condition of the stream after the addition of the sewage, and before any considerable dilution has taken place.

All of the factors of the analysis indicate gross pollution. The large increase in the amount of organic matter (free and albuminoid ammonia, and oxygen consumed), must be accounted for by the presence of the most objectionable of all contamination, animal excreta, from the sewage, because the manufactories are of such a character, that the waste contains little organic matter. The chlorine is to be largely accounted for by the presence of house sewage, but in part to the use of muriatic acid and bleaching powder in manufacturing. The hardness is due almost entirely to the use of lime and bleaching powder, in the same way. The sulphates are due to the use of oil of vitriol, and are introduced chiefly as sulphates of iron and lime. Although large quantities of sulphate of iron are thus introduced, the water contains in solution only traces of iron, thus, No. 3 was estimated to contain about 1.1 parts of iron in a million, and the others less than 1 part.

That the iron is quickly precipitated on being thrown into the sewers, is shown by the following, which gives the composition of the sediment filtered from the water.

TABLE II.

	Total.	Non-volatile.	Iron.
3	177.	62.	22.
4	121.	52.	20.
5	129.	64.	18.

Figures represent milligrams per litre, equal to parts per million by weight.

The effect of dilution and the chemical changes which took place in the course of the stream below New Britain, are shown in Nos. 6 and 7.

At Newington (No. 6) the free ammonia was still excessive, and the mineral impurities still showed the contamination, but the figures expressing the organic impurities are very much diminished, and at Hartford, above the sewers (No. 7) nearly reach those obtained from the stream before the entrance of the New Britain sewage.

No. 8, taken below several of the Hartford sewers, shows the contaminating influence of the house sewage here thrown in, (increased chlorine, free and albuminoid ammonia, and oxygen consumed, while the sulphates and hardness continue to diminish by dilution).

The samples from Piper's Brook were taken at but one season of the year, and are too few in number to permit of precise statements as to the usual condition of the stream. Considering, however, that they were taken in a wet season, when the stream was full, it seems probable that the upper part of the stream would be filthy at all seasons, and that the lower part, in Newington and above Hartford, would at no time be fit for domestic uses; and farther it seems unlikely that, even in summer, this lower part would become offensive by putrefactive changes in wet seasons, though it might do so in dry times, when owing to the lack of dilution, the filthy portion would extend further down the stream than it did last summer.

NAUGATUCK RIVER.

The Naugatuck river, one of the chief manufacturing streams of the State, takes its most northern source in the southern part of the town of Norfolk, about eight miles from the northern line of the State and empties into the tide-water of the Housatonic river at Derby, ten miles from its mouth. Its length following the railroad along its narrow immediate valley, is about forty miles; its numerous lesser tortuosities will, of course, increase this length, how much I cannot say. Its immediate valley is narrow, with steep, often rugged and hilly sides. The current is in general swift, with few places, except where dammed up, placid or slow.

The river is dammed at numerous places, at least twelve altogether, the chief of which are at Torrington, Thomaston, Waterbury, Naugatuck, Seymour and Ansonia. I say chief, because at all of these places the number of the manufactories divert, in the summer season, nearly or quite all the water of the river, leaving the bed at times almost quite bare, a fact which explains the greater offensiveness of the organic putrescible matter the water may contain. There is no pollution of the water above Torrington, where the main stream and tributaries abound in trout, or would abound, were they not so diligently fished. At Torrington there is a considerable amount of contaminating material, but not enough to seriously pollute the stream, though enough to render the suitability of the water for domestic purposes more than doubtful. Fish are found in this portion of the stream, though in lessened numbers, but still sufficient to afford some oc-

cupation for patient anglers. At Thomaston a large quantity of chemicals enter the stream but not enough, probably, to cause as much pollution as there is immediately below Torrington, owing to the increased size of the river. At Waterbury is received the larger part of all the contaminating material that directly enters the river. Below Waterbury, the sources of pollution are more abundant, but not very great in quantity at any one place, and fish are entirely wanting, and have been for many years, save the rare occurrence of a pickerel.

The valley of the Naugatuck, in its entirety, is in no place very broad, varying from five miles toward its mouth to eight or ten in the upper part of the stream. The drainage area of the entire river comprises three hundred and ten square miles. The population of this area, as nearly as can be computed from the census of 1880, was 41,373. In 1886 the number of school children in the same area gives an estimated population of 58,200, to which at least 5000 may be added as the increase during the last two years, giving a total estimated population of the drainage area, at the present time as 63,000. This estimate does not include the population of Ansonia, which has been omitted for several reasons, but chiefly because the sewage drainage will be into the Housatonic river.

This entire population is only about twice that of the city of Waterbury alone, which in reality furnishes a yet larger proportion of the entire contamination of the stream above Ansonia. The increase in population during the past seven years is fully fifty per cent., a remarkable showing. The bearing of this increase upon river contamination is still more striking when we consider that it has been wholly in the manufacturing towns situated immediately upon the stream and most favorably located for river contamination. In almost every case the population of those places where there are no manufacturing industries has decreased slightly during the past seven years. Taking the actual increase per annum as a criterion, the population of the Naugatuck valley in 1900 will be about 100,000.

The dry weather flowages of three rivers of Massachusetts, of 116, 276 and 447 square miles area, give for each square mile daily flowages of 28,300, 21,300 and 21,200 cubic feet, according to the Report on Rivers Pollution, in the sixth volume of the Massachusetts Board of Health Report. This rate of flowage for the Naugatuck would give less than 9,000,000 cubic feet daily, a flowage apparently too small.

TORRINGTON.

The village of Torrington, or Wolcotville, as it is designated on the maps, is situated at the confluence of a small stream with the Naugatuck river, less than fifteen miles from its most northern source. Above the village the river, though discolored strongly by vegetable matter at the time of my visit (August 1), has pure, rapidly running water, with an abundance of fish, pickerel, perch and trout. The first manufactory on the river is a few miles above the village, and is of small size, one of the few on the river of woollen cloth. The other manufactories discharging into the river are all of metal goods, except the Union Manufacturing Co., of woollen cassimeres, and are all situated above or in the main portion of the village. Their refuse, including the sewage of over 600 employees, thus passes by the residences of a considerable part of the population. This at present cannot be a matter of very great importance as the dilution is so great; I should think it advisable, however, that the mill sewage should as early as practicable be discharged into the village sewers, which will empty into the river a half mile below.

The village contains at present about 4000 population, but very few of whom have sewered into the river,—according to Dr. Pulver, the Health officer of the place, only those of a dozen or fifteen houses on Cook street. While I was there, a trunk sewer of eighteen inches in diameter was being laid on the east side of the river, and another of equal capacity, I was told by Mr. B. R. Agard, was to be shortly put down on the west side. The stream in the village was much discolored by the dye-stuffs of the woollen mills, with not a little indication of oily matters on the surface, chiefly from the brass mills, which, I was told, contaminated the water not a little for the wool washing immediately below. The direct sewage refuse, counting in that from the manufactory operatives, is from not over 800 people. It is believed that this will be increased by at least 1,000 within a year.

List of Manufactories.

	No. of employees.	No. using water cl.
West Branch Mfg. Co., shoddy satinets,	22	22
Union Hardware Co., skates, hardware, etc.,	150	100
Hendey Machine Co., machinists' tools,	100	0
Coe Brass Mfg. Co., sheet and rolled brass, German silver, copper and brass wire,	250	250
Union Mfg. Co., fancy cassimeres,	80	80
Turner & Seymour Mfg. Co., metal goods,	150	150
Total,	752	602

The amounts of chemicals used in these manufactories are given as follows:

Sulphuric acid,.....	52,000
Muriatic acid,.....	3,000
Nitric acid,.....	7,000
Lime,	5,000
Sal soda,.....	9,000
Soda ash,	12,000
Cyanide of potash,.....	500
Aqua ammonia,.....	2,000
Soap,.....	27,000
Logwood (estimated refuse),.....	10,000
Alum,	800
Blue vitriol,.....	350
Oil,	160 bbls.
Total,.....	<div> <div>88,680 lbs.</div> <div>160 bbls.</div> </div>

At least 55,000 of the 62,000 pounds of acids are refuse. 40,000 pounds of this, saturated with the metals will be equivalent to 110,000 pounds of the metal salts. I would estimate the daily refuse as follows: 300 to 400 pounds of metal salts; fifty to seventy-five pounds of free acids; eighty pounds of alkalies; ninety pounds of soap; thirty to fifty pounds of coloring matter; and 400 pounds of fatty or organic matter from the oils used in the manufactories, the washing of raw wool, etc.

Fish are found below Torrington, though they are not abundant, and competent observers tell me that the decrease in abundance has been due to the mill refuse. A former slaughter-house that discharged into the stream below Torrington has been discontinued.

The valley below Torrington is sandy and so located that it could easily be made serviceable for filtration or irrigation of the sewage of Torrington.

Between Torrington and Thomaston, a distance of about ten miles, there is little source of contamination. The valley is not broad, and there are no villages of any size. At Litchfield Station there is a small paper mill, engaged in the manufacture of brown paper from jute and gunny bags, and employing but three or four hands. The chemicals used, chiefly chloride of lime, are thrown upon the ground after use, so that but little reaches the stream. Mr. Page said that the water was perfectly pure for his purposes, though he thought the effects of the acids used at Torrington

could be traced in the diminution of fish in the river that had occurred since Torrington had grown to be so large a place.

THOMASTON.

The village of Thomaston is situated in a narrow irregular valley, and contains a population of about 3500. There is no public system of sewerage, though the growth of the town will soon necessitate some more regular plan for the disposal of refuse. There are a number of private sewers, and at the time I was there (August 5), I observed one in process of construction. Dr. Goodwin very kindly pointed out to me the sewage condition of the village, from which it was ascertained that the whole number of people sewerage directly into the river, aside from those in the large manufactories, would hardly exceed 300. There is a little stream running through the place, known as Twitchgrass brook, which receives considerable sewage, principally that from the town buildings, firemen, etc. A private sewer runs through Union street, sewerage perhaps seventy-five, and there is a sewer from the hotel on the east side. There are about ten acres in the middle of the village that form an open marsh, receiving the sewage of about a dozen houses, and emptying into a sewer that passes through Park street, into which perhaps fifty more people sewer. Most of the rest of the sewage is derived from the buildings surrounding the public buildings, perhaps 175 people. Not more than a twelfth of the village, it is thus seen, dispose of their sewage into the river, aside from those in the factories. In Thomaston there are but two manufactories, but they are both important ones, the Seth Thomas Clock Company, employing 800 hands, and the Plume & Atwood Brass Mills, with 260 employees. All of these employees, 1060 altogether, use water-closets that discharge into the river, though, of course all the excreta from these persons are not so disposed of. We can estimate the entire sewage at this place as that from the excreta from between 1000 and 1200 people, and the kitchen slops and other refuse of 300 more. About 140,000 pounds of acids are discharged into the stream here or immediately below annually. This represents about a half ton of sulphates of copper and zinc daily, a quantity sufficient to affect the abundance of fish.

The city water of Thomaston, derived from adjacent lakes, was at the time of my visit, extremely unwholesome and the subject of complaint.

Immediately below Thomaston a small stream enters the river, bringing a very slight amount of contamination, including only surface wash and the excreta from perhaps twenty-five or thirty persons in Northfield, and the Northfield Knife Co.'s works, with a few carboys of acid annually. A few miles below, near the mouth of another small stream of pure water is situated the American Knife Co.'s shops, which discharge the excreta of about fifty employees and a small quantity of acids. Between here and Waterville the contamination is slight or none.

Manufactories between Torrington and Waterville.

		No. of employæes.	No. using water cl.
Page & Dains	Paper	3	4
Plume & Atwood Mfg. Co.	Brass	260	260
Seth Thomas Clock Co.	Clocks and watches	800	800
Northfield Knife Co.	Pocket cutlery	75	12
American Knife Co.	Pocket cutlery	50	45
Total		1188	1121

Chemicals used by the above Manufactories.

Sulphuric acid	118,899 lbs.
Muriatic acid	1,044
Nitric acid	6,119
Nitro-muriatic acid	10,849
Total acids	136,901
Lime,	10,000
Chloride of lime	2,000
Potash	3,439
Cyanide of potash	300
Aqua ammoniæ	262
Total	16,001
Blue vitriol	600
Soap	8,000
Fish and mineral oils	6,000 gals.
Total	{ 161,503 lbs. 6,000 gals.

The above includes the small estimated waste of the paper-mill.

At Waterville, or on Hancock brook, a mile above, are two metal manufactories (brass and pocket cutlery), and the Welch Hosiery Mills. Nearly two hundred employees of these mills discharge excreta into the stream, and the sewage of perhaps twenty-five more in the village empty into the river. Not more than one

thousand pounds of acid are discharged annually with four tons of alkalies nearly, per annum, under which is included chloride of lime, the larger part. To this is to be added the washings of raw material in the hosiery mill, the daily quantity of which I am not at liberty to give, but the refuse of which, including soap, I estimate at over two hundred pounds daily, more than three-fourths of which is organic. The water of Hancock brook is but little contaminated, receiving the surface wash of a scattered population of a few hundred people, and the refuse of a small metal manufactory at Greystone.

Below Waterville a short distance, the water for the Waterbury manufactories is diverted from the stream. Two measurements of the flowage at that point, made November 8, gave me 10,800,000 and 11,400,000 cubic feet daily, or about 7500 cubic feet per minute. The entire amount of sewage above this point may be put at very nearly that of 2500 persons with an additional half ton daily of putrescible organic waste, 250 pounds of organic, slightly or non-putrescible matter (including soap); 200 pounds daily of alkaline chemicals, and nearly a ton of acids and copper, zinc and iron salts estimated as such. Taking Mr. Hering's estimate of one hundred and fifty cubic feet flow per minute for each thousand sewerage, the flowage here would permit the reception of the sewage from twenty-five to thirty thousand people or its equivalent, even were there not more than 6,000,000 feet. But I am not at all certain that the flowage here in summer may be as small as that.

WATERBURY.

Waterbury, the chief city on the river, both in size and manufacturing importance, is situated at the confluence of Mad river, on each, but chiefly on the east side of the Naugatuck. Estimates of its population given me in July by Mr. F. F. Weld and Dr. Frost, the former the city engineer, and the latter the health officer, placed the number at between thirty and thirty-two thousand. The census of 1880 gives 17,806 as the population of the city, and 20,270 for the town, showing an increase of fully sixty per cent. during the past seven years. The city, as is well known, depends almost wholly upon its metal, chiefly brass, manufactories, for its sustainment.

The sewerage of Waterbury, though being rapidly pushed, is at present very incomplete, largely due, doubtless, to the city's rapid growth. The city sewers receive less than a fourth of the

city sewage, in striking contrast with the excellent sewerage of New Britain, the other chief metal manufacturing city in the State. The number of houses connected with sewers in November of the present year was 1196, as given by Mr. Weld, who informed me that sewerage works and connections were increasing very rapidly. It can hardly be doubted that the lack, hitherto, of proper sewage disposal in this city has been the cause, in part, at all events, of the severe epidemics of dysentery and diphtheria that have prevailed here during the past two years. Not only have there been cess-pools and privies in abundance, but, what is more reprehensible, Mad river, passing through the southern part of the city, has been very strongly contaminated by city and manufactory sewage, receiving the contents of four sewers, and the excreta from the employees of some of the largest manufacturing concerns in the city. The Scovill Co. alone permits the excreta from all its employees, nine hundred in number, to be washed down the stream through a considerable population, and the fabric mills below add theirs from one hundred and fifty more. At the time I examined the stream, in July, the water below Scovill's showed extreme contamination; it was of a dark turbid color, with a strong odor, and was covered with iridescent films of oily and greasy matters, so much so as to render it mostly unfit for use in the fabric mills immediately below. Great brook is another stream passing through the city, against which much complaint has been made by those living or residing in its immediate vicinity. Its flowage is much smaller than that of Mad river, and its pollution much less, there being no city sewers emptying into it. In both these cases, as well as the general sewerage condition of the city, Waterbury can no longer afford to be indifferent. Not only should all sewage, from whatever source, be prohibited from entering these streams, but, so far as possible, all the manufactory refuse should be diverted into the city sewers.

Since the above was written I have received the following letter from the city engineer, bearing upon the contamination of the rivers in the city, and other matters of interest concerning the city sewerage:

In reply to yours of November 30, I will say, the injunction obtained by Scovill Co. restraining the city from sewerage into Mad river at Dublin street, was vacated for a period of six months with the understanding that the city in the mean time should take steps to remove the sewage from the river. The recommendation of the engineer and sewer

commissioners that an intercepting sewer be built to remove all sewage from Mad river has recently been adopted, and the work ordered done. I am now making surveys, plans, and estimates preparatory to beginning construction in the spring. This proposed sewer will cut off four sewers which now empty directly into the river. These four sewers probably carry the sewage from five hundred persons. When the intercepting sewer is built, I propose to so arrange it that Scovill's can carry all their sewage and waste to it, and I think it is their intention to avail themselves of the opportunity to remove their sewage from the river. No sewer empties into Great brook; what refuse gets in is from privies, back-yards and factories. We have endeavored to find out every case of private drain or privy which runs to Great brook, and when found, orders from Board of Health have been sent to stop. Nearly every case has been attended to, and only such as are not easily found are in existence. The brook is open in some places, and the temptation to throw garbage and slops into it is too great for the ordinary person living near it. The factories on the line do not run any sewage into it; perhaps some acids from the dip tubs do run into it.

Yours truly,

F. FLOYD WELD.

The proposition to so arrange the sewers to receive the manufactory refuse is really more important than the one to divert the sewage of the five hundred people now sewerage above Scovill's. From what seems to be the fact that Scovills themselves alone contaminate the stream more than the city sewage, it is only reasonable to conceive that the injunction obtained against the city by this company was done with the intention of compelling the city to construct sewers for the reception of their own, as well as the city's sewage. I dwell upon this matter for the reason that we apparently have in this case a reasonably positive example of the deleterious influences of water pollution upon the health of the inhabitants immediately adjacent. It was stated by physicians of Waterbury at the county medical meeting in October of the present year, that the dysentery and other epidemics had prevailed much more severely in the immediate vicinity of Mad river, and that the number of deaths in the fourth ward, bordering the river, during July and August, was twice as great as in any other portion of the city in proportion to the population. I can truthfully say, that at the time I saw the stream in July, and the water was not at its lowest summer ebb, the water was polluted as much as, or more than that of any other stream I have seen in the State.

Not only is there a lack of efficient sewerage in Waterbury, but there has been a lack hitherto of proper sanitation in other

ways. In two or three places, either in or very near the city, I observed, in July, large and very offensive dumping grounds for offal and putrescible refuse on the banks of the river and canal. The worst one of these, near the Burnham and Benedict Bridge, has, I believe, since been abated by the city authorities. Aside from the relation these various sources of pollution bear to the river, I mention them here as evidence that only a small part of the sewage contamination of Waterbury now enters the river, which will be speedily turned into it now that the city authorities are beginning to realize the necessity of greater activity in sanitary matters. The city has grown so rapidly from the point where sewage disposal made itself felt, that proper sewerage means have been neglected, or have not kept pace with the growth. This state of affairs, however, cannot and will not continue; already has attention been forcibly called to the needs of the city, and much has been done during the past year by the engineer and the health officer, seconded by a frequent agitation of the subject in the Waterbury American and other city papers.

It is certain that the sewage of Waterbury will largely increase in the immediate future; not a fourth of the city population, aside from those in the mills, now discharge their refuse into the river. With a population not two-thirds as great, New Britain, a city similarly engaged in metal manufactures, has nearly a half more people sewered than Waterbury. If Waterbury were as well sewered as New Britain she would now be discharging the sewage of sixteen thousand people, whereas she has in reality but little more than a third of this amount.

If the growth of the city continues unabated during the next ten years, a population of fifty thousand may be confidently expected. Such a population will, of course, produce greater density and a continued proportionally greater increase of the sewage population. The sewage population of Waterbury, I think we can safely put at thirty thousand before the close of the century. The city is so situated that facilities are afforded for sewerage cheaply, and the surface wash is easily carried off. Taking Hering's estimate of one hundred and fifty cubic feet flowage per minute, for each thousand inhabitants as the limit of safety, a flowage of forty-five hundred cubic feet of uncontaminated water will be required in summer. Measurements of the flowage in November of the present year gave me eleven million cubic feet above the city. I estimate that at that time not four million feet were

added by the effluent streams here, or say, fourteen million cubic feet. The low average summer weather flowage, it is impossible for me to give; from the testimony of numerous observers I am led to believe that the water usually gets much lower in the river than it has been at any time this year. Mr. ———, of Plume & Atwood's, at Thomaston, told me in October that the lowest flowage of the present year was in the earliest part of July, that at no other time had the dam been uncovered, and that they had thus been prevented from making certain repairs they had contemplated.

Admitting that the flow at Waterbury is not less than ten million feet, and the extreme limits of its pollution would be reached at forty or forty-five thousand population sewerage from Waterbury and the entire valley above.

Be the future prospects what they may, and whatever opinions may be held regarding the nocuousness or innocuousness of river pollution in relation to the health of the people, there is abundant ocular evidence that the river below Waterbury is already much contaminated. There is an increase in color, and along the margins, or wherever the water is placid, oily, disagreeably smelling matter is constantly seen. Further, I was assured, that, during the low water of summer the stream immediately below the city becomes very offensive, and that the rocks near the shores become coated with blackish organic matter, which when exposed, putrifies.

Three separate specimens of water taken about three-quarters of a mile below the confluence of Mad river, October 20, gave Dr. Daggett 440, 490 and 600 germs per cubic centimeter respectively. These numbers, though small compared with the numbers found in the stream below New Britain, show conclusively the effects of human excretal pollution.

The actual present condition of the sewage discharge of Waterbury into the Naugatuck is nearly as follows: City sewage from 1196 houses, equivalent to that of seven thousand people; number of operatives in the manufactories who may use water closets and urinals, 7140, for which a deduction must be made for such as live in sewered districts, and for the incomplete sewer discharge of such persons. Altogether I think we can safely put the sewage as that of eleven thousand persons, a total of about two and a half tons of fecal matter and seventeen tons of urine daily; to this must be added at least a half ton of organic waste

from the manufactories of the city, and the other refuse and kitchen slops of at least seven thousand people.

The manufactory waste of the city is chiefly inorganic, and of a kind that can do little harm to the health of the riparian population below, provided that the river is sedulously avoided as a source of domestic water-supply. The following is a list of the manufactories of the city which discharge into the sewers or river, with the number of their employees, and the number of the employees who may use water closets or urinals on the premises which discharge into sewer or river.

<i>Waterbury Manufactories.*</i>		Whole No. empl'd.	No. using w. c.
Plume & Atwood Mfg. Co.	Sheet brass and copper	400	400
Lane Mfg. Co.	Buttons and other brass goods	100	100
Waterbury Watch Co.	Watches	425	425
Matthews & Willard Co.	Brass goods	400	400
E. J. Manville Machine Co.	Special automatic machinery	40	40
Smith & Griggs Mfg. Co.	Brass and metal goods	275	275
John Draher	Machinist	10	10
Steele & Johnson Mfg. Co.	Brass	200	200
Waterbury Clock Co.	Clocks	450	300
Waterbury Buckle Co.	Buckles and small wares	250	250
Blake & Johnson	Machinery and hardware	60	40
Platt Bros. & Co.	Buttons, etc.	200	200
Waterbury Button Co.	Metal, cloth, and vegetable ivory buttons	300	300
R. E. Hitchcock & Co.	Paper boxes	150	150
Novelty Mfg. Co.	Brass	125	0
Waterbury Farrel Foundry & Mch. Co.	Machinery	190	190
Gaylord, Cross & Spiers Co.	Iron castings and machinery	56	20
Waterbury Brass Co.	Brass and brass goods	375	375
Waterbury Mfg. Co.	Brass goods	500	500
Brown Bros. Tubing and Boiler Works	Brass and copper tubing and copper boilers	100	0
American Pin Co.	Pins, hooks and eyes and metal goods	165	165
American Mills Co.	Elastic and non-elastic fabrics	150	150
Rogers & Brother	German silver and silver plated flat table ware	200	200
Benedict & Burnham	Brass and copper	800	800
Holmes, Booth & Hayden	Brass and copper	750	750
Scovill Mfg. Co.	Brass, German silver, buttons, etc.	900	900
Totals		7571	7140

* Here, as elsewhere, only those manufactories are included which discharge refuse into the sewers or stream.

The amount of chemicals employed annually by these factories is given below. I have every reason to believe that the amounts are pretty nearly the correct ones, though any variation that the figures represent would of course be on the minimum side.

Sulphuric acid	1,750,000 lbs.	
Muriatic acid	69,500	
Nitric acid	580,200	
Total acids		2,399,700
Chloride of lime	7,500	
Sal soda	18,920	
Soda ash	28,400	
Hyposulphite of soda	1,150	
Potash	13,000	
Cyanide of potash	13,950	
Ammonia	9,000	
Carbonate of ammonia	400	
Alum	1,200	
Total alkalis		93,520
Copperas	600	
Blue vitriol	1,650	
Verdigris	150	
Total metal salts		2,400
Soap		61,800
Logwood		1,700
Total		2,559,120
Oils, animal and vegetable	30,000 to 40,000 gallons.	
Oils, "mineral"	5,000 to 10,000 gallons.	

There were given 17,350 gallons of oils and 3000 gallons of kerosene, etc., but I feel sure that this quantity is considerably below the true one. Two or three of the mills, which I am sure must make use of them in large quantities, failed to give them in the reports. From a careful examination of the reports, taking into consideration the class of work and amount, I think it certain that the full amount of animal oils will exceed 30,000 gallons, and the mineral oils 5000. How much they will exceed those figures I will not say, but I hardly think they will go over 40,000 for the former and 10,000 for the latter. So too, from a lack of sufficient acquaintance on my own part with the technical details of the various metal manufacturing industries of Waterbury, at the time I visited the different manufactories there, I have but meagre returns of a few other unimportant chemicals, of the principal of which, cream of tartar, there are probably two or three

thousand pounds used annually in tinning and in the pin manufactories.

Of these substances, I think over two million pounds of the acids enter the river, carrying with them copper, zinc and iron, in the form of sulphates, muriates, and nitrates, to make nearly three million pounds. Nearly all of the alkalies (proper) must enter the stream, and, as they are used chiefly for the purpose of removing the grease from the metals, it seems probable that they are increased in weight to one hundred and twenty-five thousand pounds and over. If my figures represent approximately the amount of oils used I think that fully twenty thousand gallons, or one hundred and seventy-five thousand pounds, must be added. Altogether, then, the actual refuse from the above manufactories will be about as follows :

Free acids.....	500,000 lbs.
Metal salts (anhydrates).....	2,500,000
Alkaline salts	75,000
Soap	50,000
Fatty matters	200,000
Total.....	3,325,000
Total in tons.....	1,612

Should we estimate the metal salts as ordinary hydrates, the sum total would be full 2000 tons.

Discharging at Waterbury on the west side, is a small stream known as Street's Branch, which receives the surface wash from a population of very nearly two thousand, and the refuse of several unimportant factories. Watertown is the chief village, but not built compactly, so that there can be but little direct pollution from it. From the four manufactories from which I have reports there are given not quite two hundred employees who may use water closets discharging into the river ; the fifth factory, that of Mr. Woolsen at Watertown, is the only one on the Naugatuck river that refused me returns ; the factory, of metal goods, is, however, not a large one. The silk mills below Watertown formerly contaminated the stream to such an extent that suit was brought against the company by the farmers below, who claimed that the discharge of the mills injured the stream so that cattle would not drink the water. In consequence of this action I was told that they now dispose of the polluting material from the mills by filtration or some other method. I was told by one of the proprietors that there was no refuse from the mill, except

that from the employees. The branch is a rapid flowing one, draining nearly twenty-five square miles in area.

Waterbury and Hancock Brook Manufactories.

Tucker Mfg. Co.	Brass	5	2
Welch Hosiery Mill	Knitted underwear, cotton and wool	170	170
Sprague & Boyden	Pocket cutlery	30	20
Total		205	192

Watertown Branch Manufactories.

A. N. Woolsen	Metal	Report not given.	
M. Hemingway & Sons	Sewing silk and twist	90	90
Oakville Co.	Pins and specialties, iron and brass	60	60
Seymour, Smith & Son	Hardware (iron)	25	25
Total (with estimate of Woolsen's)		220	220

Chemicals employed by the above Manufactories.

Sulphuric acid	500 lbs.
Muriatic acid	100
Nitric acid	400
Chloride of lime	6,000
Sal soda	1,600
Borax	1,400
Ammonia	700
Soap	15,000
Tin crystals	1,000
Cream tartar	2,500
Estimate of chemicals from Woolsen's	2,000 lbs. (chiefly acids.)
Total	21,200

To this may be added an estimated quantity of two hundred pounds daily of organic matter washed from wool and cotton at Waterville. The tin may be entirely excluded.

UNION CITY AND NAUGATUCK.

Below Waterbury (or Hopeville) there is no source of contamination for the next few miles, or till Union City is reached. Union City and Naugatuck, the next village below, are so closely situated that they can best be spoken of together. The population of the two places is given at 5600. The census of 1880 gives 4274 as the population of the town, including a small agricultural population. The percentage of increase is thus seen to be fully as great as at Waterbury. There is no sewerage system, and the scattered population will prevent any concentrated sewage discharge for some time. So far as I could ascertain, there is but

one sewer in the villages discharging excreta, that from the city hall ; there are also two other sewers which take surface drainage, into which a number of people discharge kitchen slops, etc. Further, I noticed a dozen or more privies over the banks of the river at Union City. I hardly think the actual sewage discharge of both places will exceed that of about two hundred and fifty people. The water supply of both places is derived from wells. In dry seasons the water that is turned aside for manufacturing purposes leaves the river bed nearly dry, and I was told by Dr. W. F. Hinckley, who has lived for several years in immediate proximity to the stream, that the bed gives off a very appreciable odor, especially at night time. The stones in the bed at such times are said to be covered with a thick putrescible coating of green matter ; whether such coating is due to the organic pollution of the water, I cannot say, but I hardly think that very much of it can result therefrom.

Manufactories of Union City and Naugatuck.

Goodyear's Metallic Rubber			
Shoe Co.,	Shoes and boots,	650	650
H. Twitchell & Son,	Umbrella trimmings and safety		
	pins,	10	10
Dunham Hosiery Co.,	Knit underwear and zephyr		
	yarns,	200	200
Goodyear's India Rubber			
Glove Mfg. Co.,	Rubber goods,	600	500
Waterbury Machine Co.,	Elevators and wire-working ma-		
	chinery,	8	8
Union City Thimble Shops,	Thimbles and novelties,	20	12
Shepard Mfg. Co.,	Machinery,	12	13
Tuttle & Whittemore Co.,	Malleable iron castings,	425	0
Total,		1,924	1,393

Chemicals reported from above Manufactories.

		Estimated waste.
Sulphuric acid,	174,500	
Muriatic acid,	100	
Soda ash,	17,000	
Sal soda,	10,000	
Ammonia,	500	500
Alum,	4,000	3,000
Bisulphide of carbon,	11,000	
Soap,	35,000	30,000
Logwood, etc.,	15,000	10,000

Total acids,.....	174,600	170,000
Total alkalies,.....	27,500	25,000
Alum and bisulphide of carbon,.....	15,000	3,500
Total inorganic material,.....	217,100	198,500
Total soap and dyestuffs,	50,000	40,000

To this is to be added the large quantity of vegetable fibre carried off by the sulphuric acid in the rubber mills. How much, it is wholly impossible for me to say, but I should think the quantity must be very large, though it cannot do much injury to the stream. Mills for the Rubber Shoe Company were in process of construction on a very large scale at the time I was in Naugatuck, and the work will undoubtedly soon be very largely increased. No wools are scoured, but about twelve gallons daily of oils are to be included. The Tuttle & Whittemore Co., reported no waste, and the Rubber Glove Co. gave bisulphide of carbon only.

BEACON FALLS.

The population of Beacon Falls was given as 379 in the census of 1880, and the population at the present time can hardly exceed 400. The Home Woolen Mills, the largest wool manufactory on the river, employing nearly 300 hands, had but just suspended at the time I visited Beacon Falls in July, and I was assured by the agent in charge that there is no prospect of the renewal of work in the mills. The refuse and waste materials must have been large in quantity during the activity of the mills; how great, I could not ascertain. The sewage of the employees was not discharged into the river.

The village, of course, has no sewers, and there can be but little contaminating material added to the stream by the inhabitants; I noticed several privies standing over the banks, and perhaps the excreta of twenty-five people may thus reach the stream.

The only manufacturing establishment at the place is the

H. D. Bronson Co.,.....Metal goods,..... 12 12

none of whose chemicals are turned into the stream, but are emptied on the ground at some distance away; perhaps at the outside, 1500 pounds of acid are annually washed or filtered into the river.

SEYMOUR.

Below Beacon Falls there can be but little direct refuse turned into the river till we reach Seymour. High Rock Grove, the

famous summer resort, must, during the summer months, add some contaminating material from its thousand of daily visitors, but how much I cannot state. Privies are provided for the use of the excursionists.

Seymour is a much more important place, and the center of a considerable industry. It is situated in a narrow valley on a strongly sloping surface, so that the surface-wash readily finds its way into the stream. The population of the town was given in the census of 1880 at 2318; its present estimated population is 3200. There are three or four small sewers in the village, which discharge, it is estimated, the sewage from less than 100 people. There are, however, a number of privies over the banks on the river in, and especially below, the village, together with some others on the banks of the tributaries emptying at this place. From what I could see and learn of these, I do not think that more than 150 people use them, making perhaps 250 as the number of the entire sewage population of the place.

Dr. Warner, the health officer of Seymour, and who has practiced there eleven years, told me that he has seen no effects upon health that he could ascribe to river pollution, though he thought there was no doubt that the strong odor arising from the river-bed in summer during low water was due to the organic refuse of the water.

Whether the river is sufficiently contaminated or not to produce evil effects upon the health of the inhabitants along the banks in the lower part of the stream may be a question, but there can be no question whatever that the water is too much polluted for any domestic purposes. At Seymour was the only place on the river, at least below Thomaston, where I learned of any such use of the water. At one of the manufactories here I was told that filtered river water was sometimes used by the employees for drinking, and many thousand tons of ice are gathered from the river by the Seymour Ice Company. This ice company holds a sort of monopoly of the ice business here, and even exports large quantities as far as Bridgeport. The State Legislature has passed an act prohibiting the pollution of the waters of ponds used for ice supply; it should pass another prohibiting the use of waters already polluted for any such purposes. It is unnecessary to show that impurities of water are not excluded in freezing, or that disease germs may not be carried in such a way. With an epidemic of typhoid fever prevailing at Waterbury and Naugatuck, what

physician would be bold enough to assert that the frozen water at Seymour might not contain the deadly germs in numbers? I would strongly urge the prohibition of the Naugatuck as a source of ice supply. The mud of the pond from which the ice is obtained is said, when exposed in summer, to be extremely offensive.

The manufactures of Seymour are chiefly metal ones, but there are also two paper mills and one woolen mill.

Manufactories of Seymour.

		No. em- ployees.	No. using wat. cl.
F. H. Beecher,	Hardware,	30	30
Seymour Mfg. Co.,	German silver, brass and copper,	140	0
Humphreysville Mfg. Co.,	Augers and bits,	40	40
New Haven Copper Co.,	Sheet copper,	125	125
Fowler Nail Co.,	Horse-shoe nails,	65	65
Excelsior Nail Co.,	Steel wire nails,	12	12
U. S. Pin Co.,	Pins,	10	10
James Swan,	Carpenters' tools,	100	50
Tin Zinc Co.,	Not in operation at time of visit.		
John L. Somes,	Paper,	11	11
E. F. Smith,	Buttons and novelties,	40	25
Tingue Mfg. Co.,	Mohair plushes,	200	200
Austin E. Day,	Insulated wires, cables and hard rubber,	85	80
S. Y. Beach Paper Co.,	Paper,	7	5
Totals,		865	653

Of these manufactories, the Austin Day factory reported no refuse except that from the employees. The Tingue mills reported large quantities of aniline dyes, but no logwood to speak of. The aniline colors usually have but little waste, they being mostly absorbed in dyeing. If this is the case with these mills, I am at a loss to account for the complaints made on account of the discoloration of the stream. I am far from agreeing with the very prevalent popular opinion that dye-stuffs pollute streams badly; they discolor the water much, it is true, and make their pollution readily visible, but discoloration and pollution are two different things; I think it is probable that the refuse from the employees in this case pollute the stream more than the dye-stuffs do.

The following chemicals and dyestuffs are reported. Of the manufactories mentioned above, the Swan, Beecher, and Tin Zinc Companies are situated on a branch of considerable size coming in from the west; while the paper mills, Smith's and Day's are on Bladen's Brook, emptying from the east.

Sulphuric acid.....	141,000 lbs.	
Muriatic acid.....	4,100	
Nitric acid.....	500	
Total acids.....		145,600 lbs.
Lime.....	42,500	
Chloride of lime.....	48,000	
Total.....		90,500
Sal soda.....	10,880	
Soda ash.....	2,300	
Ammonia.....	500	
Total alkalies.....		13,680
Copperas.....	800	
Blue vitriol.....	400	
Total metal salts.....		1,200
Alum.....		73,000
Soap.....		19,000
Tallow.....		2,400
Aniline colors.....		5,125
Total.....		350,505
Total estimated waste.....		340,000

To these must be added a considerable quantity of oils, not given in my reports. Judging from similar manufactories above, where the oils were reported, I would estimate the oil used here at six thousand gallons per annum, of which four thousand would enter the stream. If but one-half of the acid used was saturated with copper, zinc and iron, we would have in the waste one hundred and seventy-five thousand pounds of the salts of these metals, or about thirty thousand pounds of the metals to be added to the sum total of refuse.

There are over six hundred tons of raw material consumed annually in the paper mills; at least twenty per cent. is waste, carried off with the lime and chloride of lime. A few tons annually of fatty matters may be taken up by the alkalies in addition to what is given.

ANSONIA.

The city of Ansonia, situated as it is within two miles of the mouth of the Naugatuck river, has but little bearing on its pollution, and will, therefore, be but briefly noticed. About two miles above the city, the water in summer is wholly diverted from the river into a large reservoir that serves as a feeder to the canal supplying the extensive metal manufactories here. The water is

again turned into the river bed at the town to find its way into another canal on the opposite side, that empties into the Housatonic just above the mouth of the river. During summer the river bed below the dam is practically dry for the short distance to tide-water. It has been the general impression in Birmingham that Ansonia intended to discharge her sewage into this bed, an intention that disturbed the equanimity of the former place. I was therefore surprised to find that the plan of Ansonia's sewage disposal was a very different one. At present, the trunk sewer passes across the river and empties temporarily into the tide water of the Naugatuck on the Birmingham side, but, as soon as possible, it will be pushed on so as to empty into the Housatonic.

The actual pollution of the Naugatuck by Ansonia, then, is confined to that derived from the manufactories, which passes through the canal. This pollution is, however, of considerable importance, for the canal passes through a part of Birmingham. Fully two thousand employees of the Ansonia mills sewer into it, and fully two hundred and fifty tons of acids, beside other chemicals and metal waste are discharged into it. The water above the dam shows visible evidence of pollution, and not a little greasy and offensive matters collect along the shores. Much of this pollution could easily be prevented by the manufacturers. Not only here, but elsewhere among the metal manufactories of the river, the plan of disinfecting the water closets with the acid wastes, as shown me by Mr. Schneller of the S. I. & C. Co., is to be commended.

CHEMICAL ANALYSIS OF NAUGATUCK WATER.

BY HERBERT E. SMITH, M.D.

The sample from below Thomaston (No. 9), had a moderate excess of albuminoid ammonia, but was otherwise quite pure. In the samples below Waterbury (10 and 11), the increase in the figures for chlorine, free and albuminoid ammonia, and sulphates, is clearly to be attributed to the influence of the Waterbury sewage. The maximum figures for the different factors, however, are low, and indicate that the dilution was great.

These analyses show that the river as a whole was not the subject of gross contamination, it is likely, however, that at another time, in drier seasons, a more marked influence of the large influx of sewage would be observed, particularly in certain localities.

TABLE III.—CHEMICAL ANALYSIS OF THE NAUGATUCK WATER.

		Solids.		Chlorine of Chlorides.	Ammonia.		Oxygen consumed, in 30 m. at 100° C.	Nitrogen of		Sulphates as H_2SO_4	Hardness as CaCO_3	No. of germs per c. c. as given by Dr. Daggett
		Total.	Loss on Ignition		Free.	Albuminoid.		Nitrites.	Nitrates			
9	Three-fourths of a mile below Thomaston, Sept. 28, 1.30 P. M. Clear, slightly yellowish.	60.	0	3.5	0.015	0.14	6.6	0.01	0.09	1.7	15.	---
10	One-half mile below Waterbury (above confluence of Mad River), Sept. 28, 2.30 P. M. Clear, little sediment, slightly yellowish.	60.	24.	4.5	0.050	0.24	7.3	0.05	0.16	6.3	18.	---
11	Three-fourths mile below confluence of Mad River, Oct. 20, 5 P. M. Somewhat turbid little flocculent sediment, filtered clear, yellowish.	60.	22.	5.0	0.080	0.22	5.8	0.05	0.54	---	20.	440. 490. 600.
12	One-half mile below Seymour, Sept. 28, 4 P. M. Clear, little flocculent sediment, slightly yellowish.	56.	24.	4.5	0.017	0.18	6.7	trace.	0.10	3.2	15.	---

Figures represent milligrams per litre = parts per million by weight.

SUMMARY AND CONCLUSIONS.

In the following general summary for the Naugatuck valley, Ansonia is wholly left out of account.

Estimated population of drainage area.....	63,000
Number of inhabitants sewerage into stream.....	16,500
Number of manufactories discharging refuse	70
Number of employees in such manufactories.....	12,960
Total amount of chemicals reported, in tons.....	1,719
Total quantity of oils (partly estimated), in gallons.....	65,000
Estimated quantity of metals dissolved, in tons	300
Estimated refuse from wool, cotton and paper, in tons..	250

Probably nine-tenths of the chemicals and three-fourths of the oil are refuse. The entire amount of refuse from the manufactories will exceed twenty-three hundred tons annually, or between seven and eight tons daily. The metals estimated as hydrated salts would be equivalent to twelve hundred tons. This amount is estimated on the basis that half of the acid is saturated.

In October of the present year two measurements of the flowage of the Naugatuck above Ansonia gave me something over twenty million cubic feet, but this amount seems very large in proportion to the drainage area. I can express no opinion as to how much less it may be in dry summer weather.

In conclusion, I would say that nowhere does the river appear to be excessively contaminated, save for all domestic purposes, but it is my opinion that within a very few years the stream below Waterbury will become a serious nuisance to Union City, Naugatuck and Seymour. The time is not far distant when further pollution must be stopped; it would be wise for the various villages and cities to recognize this fact now and govern themselves accordingly.

It has been the general opinion of a number of physicians on the stream, whose views I sought, that there have been no cases of disease that could be attributed to the river pollution. I quote from three only :

DRS. C. H. PINNEY, Derby, and A. W. PHILLIPS, Ansonia, July 8th.—Knew of no cases of disease that could be attributed to impure water from river. Epidemics are irregular in appearance. There has been but little typhoid fever recently, though it was prevalent fifteen years ago. Malaria is a little more prevalent than formerly.

DR. WELCH, Ansonia, July 8th.—Can trace no sickness to river pollution. There have been numerous cases of diphtheria, but

knew of none on the immediate banks of the river, except in one family. Would oppose all use of the river water for domestic purposes, but would rather drink the river water than that from wells in the city. Previous to this year a part of the water supply of the city has been pumped from the river, but neither he nor Dr. Pinney knew of any case of disease that could be attributed to such use.

It may not be unimportant to add that Dr. Welch strongly deprecates, and with justness, the rapidly increasing general pollution of the river.

STILL RIVER.

Still river is a stream of moderate size, about seventeen miles in length, that has its origin in the extreme western part of the State and flows nearly northward to empty into the Housatonic a couple of miles below New Milford. The entire drainage area has about ninety square miles, the largest part of which is in the towns of Bethel and Danbury, nearly the whole area of which drains into this stream.

The entire population of this area was, in 1880, 15,500 ; at the beginning of 1886 its estimated population was 22,000 ; at the present time it is probably not over 24,000. The chief contaminating sources on the river are Danbury and Bethel, and it is fortunate that the population of the valley below these places to its mouth is small and not increasing. The whole town of Brookfield, with an area of perhaps twenty-five square miles, through the middle of which the river passes, had a population in 1880 of 1152 with a slight decrease in 1886 ; there is a slight additional population in the town of New Milford at the mouth.

The river, as will be seen below, will certainly be excessively polluted within a very few years, but the evil effects that might follow from such excessive pollution could not for many years be so great as would be the case in many other similar streams in the State, owing to the small population below. The flowage of the stream in the summer, for the reasons already mentioned, it has been impossible for me to obtain the present year.

BETHEL.

Bethel is situated on one of the numerous small head-water tributaries of Still river but a mile or two from Danbury. The village is almost wholly given up to hat manufacture, and has in-

creased in population but slowly in the past seven years. The population of the borough was given at 1767 in 1887, and of the town at 2727. As, up to January 1886, the school children had increased in number but sixty it is pretty evident that the actual population of the borough at the present time can be but little in excess of two thousand. There is no system of sewerage whatever, and the actual amount of refuse finding its way into the stream it would be difficult to say. From the manufactories, as is seen below, the excreta from nearly five hundred people find their way into the river, and as the little brook passes through the middle of the village, it is not improbable that the refuse from other sources will reach three hundred more, or a total of eight hundred as the sewage discharge from Bethel. It is not very probable that this number will be increased very rapidly; it will be many years hence before the population will reach a sufficient density to require any elaborate sewerage, and the increase of the place itself seems to be overshadowed by the greater growth of the immediately contiguous city of Danbury.

Hat Manufactories.

	No. employees.	No. using wat. cl.
Cole & Ambler.....	80	20
Richmond Bros.....	100	100
Cochran, Baird & Levy.....	140	55
J. A. Hickock & Co.....	30	6
Judd & Dunning.....	100	55
Judd & Co.....	140	100
E. Short.....	60	60
Farnham & Fairchild.....	50	50
Charles Smith & Co.....	75	40
Frank W. Lamb & Co.....	No refuse	
Bethel Hat Forming Co.....	25	10
Total	740	486

The annual output of hats for all these manufactories is about sixty-five thousand dozen. The number of employees is, however, that of the fall months, when the manufactories are running nearly their full capacities. From the comparison of the actual production of several companies in relation to the number of employees I find the number of dozens per each hundred employees, not far from thirty-five daily. This would give about two hundred and fifty dozen per diem or seventy-five thousand per annum as the capacity of seven hundred and fifty employees. The busiest

season, in preparation for the spring trade is, however, somewhat later in the year, when the output will probably reach three hundred or even more dozen daily. On the other hand, during the dullest season, in June, July and August, the output will be considerably below the average, perhaps not over one hundred and fifty dozen per diem.

For sixty-five thousand dozen hats, nearly the following amounts of the different dyestuffs would be required.

Bichromate of potash.....	7,000 lbs.
Argols	6,000
Madder	11,000
Cudbear	4,000
Blue vitriol	1,400
Logwood.....	334,000
Fustic	16,000
Alum	2,000
Total	381,400

At least three-fourths of the logwood is woody matter that does not get into the river ; we may consider 65,000 pounds of logwood extract as its equivalent.

For three hundred dozen hats, which may be taken as the maximum daily production, about the following dyestuffs would be used.

Bichromate of potash.....	36 lbs.
Blue vitriol.....	8
Logwood (extractive matter)	250
Other dyewoods, about.....	100

or about four hundred pounds altogether.

DANBURY.

In response to a request for information relative to the sewerage of Danbury, the city engineer, Mr. J. K. Wilkes, very kindly sent me the following letter:

DEAR SIR:—In reply to your request I would say: At a special Borough meeting, called for that purpose April 8, 1885, a special committee was appointed to investigate the matter of sewerage of the Borough. Said committee was authorized to call for the opinions of experts, and were to report at a future meeting a definite plan for sewerage, with its feasibility and probable cost. Said committee thoroughly investigated the matter and submitted their report at a meet-

ing May 3, 1885. A canvass of the Borough at that time determined that there were 2800 families within the Borough. About 1100 of these discharged sewage upon the surface of the ground, or directly into the water-courses; 600 were provided with cess-pools, while there were 1900 ordinary privies.

From the above figures it appears, that, at that time (1885), about one-third of the sewage of the Borough was discharged directly or indirectly into the streams or water-courses.

The construction of our present sewer system was begun in Sept. 1886. We have now constructed about 7100 lineal feet of our sewer system proper. As yet, but a small proportion of the buildings on the line are connected.

The present population is 18,000; in 1885 it was 15,462; in 1883, 13,500.

Our sewer system will, without doubt, be rapidly extended. The present outlet is into Still river. The number of people who have at present connections with the sewers cannot readily be determined. About 40 connections have been made, most of which are from business houses. Altogether, probably 7500 persons sewer directly or indirectly into the stream; five years hence I should say that the number would be 12,500, assuming an increase in population at the rate of the past two years.

The stream (Still river), is usually low in the summer months. Soil suitable for the filtration of sewage is found about two and a half or three miles east, but it would be quite expensive to carry the sewage there, owing to the deep cuts necessary for the construction of the sewer. Pumping would not be required.

The water-supply is, we think, inexhaustible.

Yours very truly,

J. K. WILKES.

As is seen from the above, the growth of Danbury in the last few years has been very great. Allowing the same growth of over one thousand annually, there would be a population of twenty-four or five thousand five years hence. In 1885, there were 1100 families who sewered directly or indirectly into the stream, but as there were few sewers the discharge could only in part have reached the river and would scarcely be equivalent to one half of that number, I should think, regularly connected with sewers. Mr. Wilkes' estimate of 12,500 as the number who will discharge their sewage into the river five years hence, seems to be a very probable one, but, it will be understood, that this discharge will be almost a wholly direct one; certainly the actual sewer discharge will be more than double what it is at present, probably three times as great.

From my reports it is seen that at least thirty-five hundred employees of the mills discharge all or the larger part of their excreta

into the river. Accepting even one-half of the number given by Mr. Wilkes as that of persons who discharge their sewage into the river, aside from the factory employees, and we have certainly 7,000 as the number of the persons who discharge into the stream at the present time, from the city and manufactories. I believe this number will be doubled in 1892.

For the sewage from 15,000 people, accepting Mr. Hering's estimate of 150 cubic feet flowage per minute for each thousand, a stream of at least 4,000,000 cubic feet summer flowage per diem will be required. It is my opinion, judging from information from various persons, that the low summer flowage at this point is considerably less than this quantity. In November of the present year, measurements of the stream below Danbury gave me a little short of 6,000,000 cubic feet, but I was told that there was twice as much water then flowing as is sometimes seen in July and August.

Furthermore, five years hence the pollution from Bethel will certainly be that of at least 1,000 persons. In sewage alone it seems almost inevitable that Still river will be excessively polluted below Danbury within a very few years. I was told that even at the present time in summer, the river bed becomes very offensive, and that the stream is very badly contaminated. There has been not a little complaint by the inhabitants below on account of the contamination, but this is chiefly based upon the discoloration of the water from the dyestuffs. Mr. Wilkes informed me that the discolorations from this cause could, in dry weather, be traced for ten miles, or even to the mouth of the stream near New Milford. The inhabitants of Brookfield have claimed that cattle will not drink the water, but on this point I am somewhat skeptical. Fish are caught at that place, not in abundance perhaps, and where fish will live, I doubt that the ordinary cow will persistently refuse to drink. The present discharge of the city sewers is within the city, but the intention is to carry it a mile below the city as soon as possible.

Danbury Hat Manufactories.

	No. employees.	No. using water closet.
C. H. Merritt.....	250	250
F. C. Tooley & Co.....	150	75
T. Brothwell.....	150	150
T. C. Willard.....	250	125
Crofut & White.....	250	50
C. H. Tenney.....	250	200

	No. employees.	No. using water closet.
W. Beckley & Co.	450	450
Tweedy Mfg. Co.	500	500
D. E. Loew & Co.	200	200
E. A. Mallory & Co.	200	100
W. A. & A. M. White, fur cutters	125	125
P. Robinson, fur cutter	65	50
Beltaire Bros.	175	0
Rundle & White, wool hats	100	100
Nichols, Hine & Moul.	200	200
Jno. N. Green	150	100
Meeker Bros.	200	200
Green & Bro.	250	250
L. N. Johnson	175	50
Byron Dexter	}	Returns not given.
B. Fay		
L. R. Hoyt		
Thos. Meath & Co.		
Scott Bros.		
Totals,	4,090	3,175
Estimated totals,	4,800	3,800

The actual average daily output of hats of those of the above firms from which reports were obtained was very nearly twelve hundred dozen, and the total capacity was given at about seventeen hundred dozen. From the five firms not reported there will be an average of at least two hundred dozen, making fourteen hundred dozen as the average, and two thousand dozen as the capacity of the Danbury hat industry.

For the dyeing of 420,000 dozen hats about the following amounts of dye-material will be required :

Bichromate of potash,	44,000 lbs.
Argols,	44,000
Madder,	70,000
Cudbear,	27,000
Blue vitriol,	9,000
Logwood chips,	2,124,000
Fustic,	106,000
Alum,	10,000
Total,	2,434,000

The amounts used daily may be given as follows :

	Average.	Capacity.
Bichromate of potash,	150	200
Argols,	150	200
Logwood (extractive matter),	1,900	2,400
Other dye-woods,	500	700
Totals,	2,700	3,500

In addition to the refuse from the above, there are over six hundred pounds of fatty and other organic matters washed daily from wool and fur, there being about sixteen hundred pounds of the former, and three thousand pounds of skins treated daily.

HOCKANUM RIVER.

The Hockanum is a stream of moderate size that takes its origin in the town of Stafford, and flows nearly southwestwardly to empty into the Connecticut river a mile or two below Hartford. Its length is about twenty miles, with a drainage area of nearly eighty square miles, including nearly the whole of the towns of Manchester and Vernon, with parts of Tolland, Ellington and East Hartford. The population of the two former, in 1880, was 13,377; in 1886, the number of school children had increased less than one hundred, so that the population at that time could not have exceeded 14,000. The additional population of this drainage could hardly have exceeded 500 in 1880, and, as in each case, the population of these other towns, with the exception of East Hartford at the exit, has slightly decreased, it is pretty certain that the entire population of the drainage area of the Hockanum at the present time cannot much exceed 15,000. It must be understood that here, as elsewhere in the State, the sewage finding its way into the stream has increased out of proportion to the increase of population, due to the general fact that while the population of the cities has increased that of the agricultural regions has diminished.

In comparison with the Naugatuck it is seen that the ratio of population to the area of drainage is nearly the same, that is, of both, about one-fourth as great. As the drainage area must present a very similar proportion to the flowage of the stream in each case, it follows that the dry weather flowage of the Hockanum at its mouth must be *less* than 6,000,000 cubic feet per diem.

The manufactories of the Hockanum valley are almost exclusively cotton, wool, silk and paper, which form the most polluting class. My returns from the manufactories on this stream are less complete than those from the Naugatuck, three or four of the manufacturers having neglected to send such.

The valley of the Hockanum above Manchester is broad and only gently sloping as far as Rockville; above Rockville I made

no examinations, as this place is at the head of any real pollution. Lake Schnipsit, just above Rockville, is a very large and deep pond of pure water that furnishes the supply for Rockville. Above Lake Schnipsit there are others of considerable size.

There are three principal sources of pollution on this stream; at Rockville and Manchester on the main stream, and at South Manchester or Cheneyville on a small branch, often called Hop brook, that has its confluence a mile or two below Manchester. The sources of pollution below the confluence of this last branch are unimportant, and have not been examined the present season.

ROCKVILLE.

Rockville, the chief village on the Hockanum, has a present estimated population of about six thousand, a considerable increase since the census of 1880, when the entire population of the town of Vernon, including Rockville, Vernon and Talcotville, was given at 6915. The growth has been rapid, and it is expected that its increase will be yet more rapid in the future with the increase in the fabric industries for which the place offers a favorable location. The Springville mills, now approaching completion, it is expected will add another thousand to the population within a very short time. The village is situated in the narrow valley of the stream, and does not extend far back from the river. The declivity on either side is most favorable for surface wash, so that a large amount of contamination must thus find its way into the stream. No regular system of sewerage has been begun, as the village has not yet received the city charter which it expects to soon receive, when more active operations for the disposal of sewage will be undertaken. The water supply of the village is most excellent, coming, as it does, from Lake Schnipsit, a mile and a-half above, a body of water two or three miles in extent, and thirty or forty feet deep. At present, the secretary of the water company informed me that they supply water for one hundred and seventy-five water closets and urinals, indicating a sewage population of about a thousand. All the new houses now building are connected with sewers, and it is safe to say that three or four thousand people will be sewerage into the river within a very few years, outside of the mill sewage.

The manufacturing industries, upon which the place depends, are composed chiefly of the woolen mills, with two cotton mills and one silk mill.

The amount of water in the stream at this place was given at over forty-one hundred thousand cubic feet (30,000,000 gallons) per diem, by Mr. Samuel Fitch, of the Stockinet mills, a measurement made a few years ago for manufacturing purposes. The flow is rapid through and below the village. The effect of the mills' pollution is very apparent in the discolored water, and in the lodgment of discolored foam near the race dams. I learn of some complaints of people along the river below, based chiefly on the discolored water. There seem to be, however, fewer complaints of the offensiveness of the water, and I doubt very much that the stream has already become a source of evil in a sanitary sense. It seems certain, however, that the river must soon be among those from which legislative relief will be demanded.

The following is a list of the manufactories at Rockville or immediately below.

Manufactories of Rockville.

	Whole No. employed.	No. using water closet.
Rockville Warp Mills, Cotton warps, -----	50	50
White Mfg. Co.,-----Ginghams, -----	300	300
White, Corbin & Co., Envelopes, -----	150	150
Hockanum Co.,-----Wool and worsted goods,-----	392	No returns of 250 chemicals.
J. J. Regan, -----Horse blankets, wool extracts, wool flock and shoddy,-----	68	60
Rockville Gas Lt. Co., Illuminating gas,----	3	0
Israel A. Barker, ----Fancy cassimeres and cloakings,-----	200	7
American Mills Co.,---Woolen goods,-----	147	147
New England Co.,---Worsteds,-----	240	240
Belding Bros.,-----Sewing silks, -----	450	450
Rock Mfg. Co.,-----Woolen,-----	400	400
Samuel Fitch & Co.,--Stockinets,-----	115	100* No returns.
Springville Mfg. Co., Woolen -----		Not yet in operation.
Totals, -----	2,515	2,154

The amounts of chemicals, etc., reported from the above mills are as follows:

Sulphuric acid-----	37,000 lbs.
Muriatic acid-----	2,500
Nitric acid-----	200
Total acids-----	49,500

* Estimated number using water closets.

Lime	58,500	
Chloride of lime	1,600	
Total lime		60,100
Sal soda	82,000	
Soda ash	79,000	
Bisulphite of soda	9,850	
Bichromate of potash	19,500	
Potash	1,500	
Alum	8,800	
Aqua ammonia	2,600	
Carbonate of ammonia	3,000	
Cyanide of potash	1,000	
Total alkalies		203,250
Copperas	47,500	
Blue vitriol	17,600	
Tin crystals (or muriate)	510	
Total metal salts		65,610
Cream tartar (and argols)	9,100	
"Tartaracine"	1,600	
Total		10,700
Indigo	8,500	
Indigo extract	250	
Total		9,750
Logwood or other dye-stuffs	308,000	
Logwood chips	634,000	942,000
Cutch	30,000	
Fustic chip and extract	7,950	
Camwood	3,093	
Total dye-woods		983,043
Oxalic acid		1,200
Aniline colors		3,500
Soap		265,000
Starch (not wasted) about		50,000
Sperm oil	150 gals.	
Lard oil	13,100 gals.	
Other oils	4,000 gals.	
Total of gallons	17,250	
Total of pounds		1,651,153

In only a part of the above mills is there given a daily estimate of the amount of raw wool treated, but from these I estimate,

taking kind of goods manufactured, number of employees and amounts of chemicals returned, that the whole amount for those giving returns is in excess of ten thousand pounds daily. To this is to be added about two thousand pounds of old wool treated in a way to give direct organic refuse. The amount of cotton consumed daily is probably somewhat under twenty-five hundred pounds. About three thousand pounds of mixed wool and cotton rags are treated daily with dilute acid for the removal of the cotton fibre. No estimate is given of the refuse from the silk gum, but, comparing the amount of soap returned, and the number of employees with those of other mills, there should be not far from two hundred pounds daily, probably in excess of that amount.

Altogether, the materials consumed in scouring, dyeing, cleaning, etc., must amount to nearly nine hundred tons per annum. This, however, does not all enter the river. Of the dye-woods, fully three-fourths consist of woody fibre, which may be otherwise disposed of, and a considerable proportion of the extractive and other coloring matter is taken up in the fabrics. Certainly five hundred tons will be a safe estimate of the actual inorganic or comparatively harmless organic waste. From the raw material consumed there will be at least four hundred tons of organic waste, chiefly fatty matters. From the two thousand sewerage into the stream there will be a-half ton of faecal matter, and over one ton of urine daily, beside what kitchen slop and surface wash there may be from the village. Altogether, then, the village contributes daily to the stream a ton and a-half to two tons of solid organic putrescible matter, an equal quantity of non or slightly putrescible substances, and six hundred gallons of urine on the average.

Below Rockville to Manchester there is comparatively little polluting matter entering the stream. The population is sparse and the valley rather broad. There are two paper-mills, one cotton and one woolen mill, from which, altogether, there is the discharge of excreta from about one hundred and fifty persons. The returns of these mills will be included with those of Manchester. The distance from Rockville to Manchester is about five miles.

MANCHESTER.

The village of Manchester numbers about twenty-five hundred inhabitants and is not densely settled. There cannot be much direct sewage, except from the manufactories. The following list includes the various factories between Rockville and the mouth of Hop Brook.

Manufactories below Rockville.

	No. empl'd.	No. using w. c.
Granite Mills, Vernon ----- Album and binders' boards	18	5
Talcott Bros., Talcottville ----- Union cassimeres	100	70
Squire & Miller ----- Roller covering	4	0
Oakland Paper Co., Oakland ----- Writing and envelope paper	50	50
Union Mfg. Co., Manchester ----- Gingham	340	200
Keeney Bros. ----- Album and binders' boards	15	0
Peter Adams & Co. ----- Writing paper	100	100
E. E. Hilliard & Co. ----- Woolens and mixed goods	75	75
Total -----	702	500

The total sewage population for this region may be put at seven hundred. The amounts of chemicals employed are as follows: my returns from the largest paper mill, Peter Adams & Co., are incomplete.

		Reported as actual waste.
Sulphuric acid -----	200 lbs.	
Lime -----	490,000	16,000
Chloride of lime -----	248,000	19,000
Sal soda -----	51,000	
“ estimated additional -----	30,000	
Soda ash -----	27,000	500
“ estimated additional -----	30,000	
Sal soda and soda ash -----	31,000	
Alum -----	31,500	1,600
“ estimated additional -----	50,000	
Aqua ammonia -----	500	
Copperas -----	36,100	3,100
Blue vitriol -----	4,500	3,100
Soap -----	51,000	1,600
Aniline colors -----	210	300
Logwood (chips) -----	18,000	
“ extract -----	34,500	1,500
Bichromate potash -----		10,000
Cutch and sumac -----		6,200
Stannate soda -----		1,500
Brown sugar of lead -----		1,500
Totals -----	1,133,510	65,900

Of the above, all practically enter the stream, save a portion of the mineral mordants and coloring matters. The lime is almost wholly used in the paper mills, and represents an equal quantity of organic refuse from the rags. None of the sulphuric acid, lime, chloride of lime, sal soda, soda ash, alum, ammonia and soap are contained in the finished goods, and they are, hence, practically all waste, amounting to nearly five hundred tons. About twelve hundred pounds of wool are scoured daily, and (I estimate) about a ton of cotton. About ten tons of rags are consumed daily, which, allowing the minimum of waste, 15 per cent., will give, as already stated, a gross amount nearly equal to that of lime.

SOUTH MANCHESTER.

The village of South Manchester, situated about two miles south of Manchester, on a small tributary known as Hop brook, but nameless on the maps, contains a population of about three and a half thousand. The village is scattered over an uneven or gently sloping surface in two principal clusters, three-fourths of a mile or so apart. The village appears to be in a good sanitary condition so far as disposition of house refuse is concerned. A large part of the village is owned or controlled by the Cheney Brothers, and their statements, in which every reliance can be placed, were that there were twenty-five or thirty houses with water-closets, from which not more than one hundred and twenty-five people discharged excreta into the stream. In addition to this village sewage, there was emptied the sink and kitchen refuse of perhaps eight hundred people.

The manufactories are exclusively of two kinds, paper and silk. Of the former there are the Case Bros. the H. E. Rogers, Ingall's and Frederick Case's, mills, all of them small and mostly engaged in the production of binders' boards. My returns from these are very incomplete, but I do not think there can be one hundred employees in them all. From the binder-board mills the only material given is copperas, amounting possibly to four hundred pounds daily; of lime and chloride of lime there can hardly be much more.

The chief source of pollution on the stream is the Cheney Bros. Silk Mills, situated less than two miles from the mouth of the branch, and which report 1595 employees and 1670 as the number who may use water-closets or urinals discharging into the streams.

This added to the number sewerage excreta outside of the mills gives a total of 1800. Now, while it is very evident that all this number in the mill will not actually turn all their excreta through the mill water-closets there cannot be a very great reduction made for those who do not thus habitually use them. In a certain mill at Ansonia I was told by the proprietor that conveniences were purposely made disagreeable in order to discourage the use of them by the employees, but, although I did not examine any of the water-closets in the Cheney Mills, it can be very safely said that the Cheney Brothers belong to a very different class of employers. I think we can put the daily discharge of excreta in South Manchester safely at that of sixteen hundred people.

The report furnished me of the chemical and other materials used by these mills is the most complete and detailed of any that I have received in the State, and enables me to get at a close estimate of the actual contamination from this source. I am not justified in publishing this list in detail, nor is such necessary; all that can be of interest as bearing upon the stream contamination will be included in the following list:

Mineral acids,.....	57,082
Alkalies (soda, potash),.....	94,955
Soda and potash salts,.....	10,959
Metal salts (iron, copper, tin, antimony),.....	23,880
Alkaline earths, salts,	1,310
Total inorganic substances,.....	188,187
Organic astringent dye-stuffs,.....	52,086
Organic dye-stuffs (mostly wood extracts),	68,689
Organic acids, about	16,000
Vegetable gums,	28,281
Glue, etc. (animal),.....	8,626
Soap,	315,797
Aniline coloring matter,.....	27,082

Of the above, nearly all of the mineral acids and alkalies are waste. Of the soda and potash salts, including the bichromate of potash, common salt, hyposulphite of soda, etc., used largely in dyeing, perhaps one-half enter the stream. The same may be said of the metal salts, comprising chiefly those of iron. Altogether, then, including the chloride of lime, there are over seventy-five tons of inorganic waste. Aside from the use of the water for domestic purposes, or their influence upon fish, none of these are injurious, and many of them beneficial, as disinfectants.

Of the astringent dye-stuffs, containing as their essential principle tannin or allied compounds, it is impossible for me to estimate the waste; nor can I give a very approximate estimate of the waste of the other organic dye-stuffs. Only this should be said, the character of the processes of dyeing is shown by the materials to be much finer than those in the dyeing of cotton and wool by the form in which they are used. Sumac, nutgalls, barberry, indigo, logwood, fustic, cutch, as well as all the other less important materials, are reported as either the extract or some concentrated form. Aside from the greater cost of many of the dye-stuffs used, there is more care used in the dyeing and consequently comparatively less waste than results in the coarser dyeing processes of cotton, fur and wool. Of all the vegetable dye-stuffs, amounting to 122,000 pounds, I should hardly think there could be over thirty tons waste. All this waste is deleterious, and were better kept from entering the stream. At the same time it is exclusively vegetable in its character and can scarcely be called poisonous; most of the substances are used in medicine, and, like logwood, are mild in their action. Their effect upon the stream can hardly be very different from that produced by other vegetable substances like decaying wood, leaves, grass, etc. Of course they discolor the water, and make it very unsightly, but the sanitary effects of polluted water cannot be judged by its color.

On an average, over seventy-five pounds of the aniline colors are used daily. "The dyes used in silk manufacture are chiefly those known as the aniline colors, and being very expensive, and capable of being applied to the silk almost without waste, but little go into the rivers."—Massachusetts State Board of Health Report for 1876, p. 49.

Aside from the soap, the only animal matter made use of in the manufactory, as reported, is gelatine, either purified or as ordinary glue. This is perhaps the most injurious of any of the substances given, but the quantity used daily is less than twenty-five pounds. In general, I am unacquainted with the special uses of many of the chemicals reported, nor is an elaborate description of such essential. Raw silk contains no fatty matters, and its only refuse is the "gum," already spoken of. The finished goods contain the coloring matter and a portion of the mineral mordants; a portion of the vegetable gums is used for incidental requirements in labelling, etc., all the rest must necessarily be waste.

In review of all the above given sources of contamination, my

opinion is that the injury they exert upon the health of the people living along the stream is too slight to be estimated. They are only slightly, if at all, putrescible. There are no fatty or greasy matters in the raw silk to be removed, and the only refuse of such kind that there can be, is derived from the oils used in the process of manufacture, which is reported as less than three gallons per diem of olive oil. The soda and potash alkalies cannot be used to remove grease; for what purpose they are employed I cannot say.

We come now to the real source of pollution in these mills (aside from the most important of all, the sewage discharge), the gum scoured from the cocoons. The nature of this gum has already been spoken of. In the present mills the silk is obtained from perforated cocoons, that is, cocoons from which the chrysalis has either escaped or has been so injured by parasites that the ordinary reeling processes cannot be employed. In the cocoons which I was shown, all or nearly all of the insects had escaped, so that organic refuse from that source could not be great. The quantity of refuse from the soluble "gum" can be pretty closely got at: it is given at about 700 pounds daily. For its removal 1000 pounds of soap are required, which, together with the gum, all goes into the stream. This gum, like its allied compound, glue, is offensive and putrescible. Formerly it was the practice to remove it by maceration, but the stench was found insupportable by the workmen, and the process was abandoned. It is desirable that this waste substance should be recovered or prevented from entering the stream, but, as is so often the case with manufacturing refuse, its dilution and quantity render the problem of its recovery or other disposal a complicated one. The firm feel sensibly the desirability of making some other disposal of it, and intend, they told me, to very shortly ascertain what other uses it can be put to. There is a large quantity of what must be an excellent fertilizing material wasted. Can it be utilized?

The soaps used are brown oil, olive oil, and palm oil; they are moderately hard, containing about twenty per cent. of water; of the remaining eighty per cent., about ten per cent. is soda, and at least sixty-five per cent. oleic, stearic and palmetic acids, insoluble in water. Could the acid wastes of the manufactory be utilized to break up the fatty compounds, it is possible that the fatty acids might be recovered without much expense. Even were this soap left in, I do not think it would be any injury to the waste as

a fertilizing substance. The next and most important question would be, whether the gummy matter can be concentrated by precipitation or otherwise in order to render it serviceable as a fertilizer. The answer to this can only be given by the chemist, or by practical experiment.

After all, the chief source of pollution to Hop brook is the excreta from the mill employees. Nearly half a ton of fæcal matter, and 500 gallons of urine enter into the stream daily from the village and mill employees, and while the refuse from the silk may be highly putrescible and odoriferous, it cannot contain disease germs, as is likely to be the case with human excrement.

After having seen what the polluting matter of the stream is, we obtain some idea of the actual pollution of the brook. The stream, like most of the brooks in Connecticut, is rather rapid in its current; above the village its water is essentially pure and potable, the refuse from the two paper mills not materially contaminating it. Each, or at least most, of the different manufactories have a dam and reservoir, and as the flowage of the stream is not sufficient in itself to furnish the necessary motive power, the water is stored up during the night and used as needed. The result of this is that the rate of flowage is very intermittent, and, by alternately exposing and flowing over surfaces covered with more or less putrescent matter the possibility of injurious germs becoming disseminated is much greater. Again, too, the actual pollution of the water must vary not a little with the amount of water, though, evidently, the pollution would be, in general, least when there is the least water flowing. This variability, also, renders an accurate estimate of the normal flowage below the village more difficult to obtain. Mr. Cheney informed me that, some years ago, a measurement of the water at the Cheney mills gave nine cubic feet per second. This quantity, accepting Mr. Hering's estimate, would allow the sewage of not far from four thousand people before reaching its limit of sanitary pollution. My own measurement, made in October, gave a larger quantity, about one million, six hundred cubic feet as the daily flow, a quantity twice as great as that given by Mr. Cheney. I was assured, however, by Mr. K. Cheney, at the time I made the estimate, that the flowage was at least a fourth greater than usual.

Admitting that three thousand people might sewer into the stream before becoming dangerous to health, and we have

the limit of contamination not yet, though nearly, reached. Taking sixteen hundred as the present sewage population, the organic refuse from the mills will be equivalent to that of a thousand people more. But, I would repeat, the intermittent character of the flowage must be taken into account as affecting the actual pollution.

The actual condition of the stream at its worst I could not ascertain from observation. The odor below the village during the day time, at the times of my visits was only slightly appreciable but I can readily conceive that at night time it might be very perceptible, if not offensive. That this odor extends far away from the banks, even when at the worst stage and at night time is doubtful. The stream is certainly far less polluted than is Piper's brook, but even on that brook, immediately below New Britain, I found no one who said that the smell of the stream was ever perceived beyond a few hundred feet from the margin. The effects of the pollution are readily seen to its mouth, in the discolored, somewhat turbid waters, and especially by the thick blackish coating everywhere seen on its bottom and stones along its shores. The stream is badly contaminated, there can be no question of that ; but its contamination is no greater than Still river below Danbury, or Harbor brook, apparently, below Meriden.

Has the stream been productive of disease among its inhabitants along its banks for the two miles to its mouth? Candidly I am compelled to state that I have had no evidence leading me to believe that any specific case of disease could be attributed to this cause. Sickness there has been along its course, and this sickness has been attributed to the pollution of the stream and may have, and probably has been influenced in its severity by the proximity of the stream. But that influence has been indirect only, acting as a depressant upon vital power and I do not believe can be other than slight. Certainly I have no belief whatever in the theory that the malaria that has prevailed, in this in common with other regions, has been due to the river pollution. Again I wish it distinctly understood, that I do not mean to say that the pollution has been without influence on the malaria ; but I do say that there would have been malaria there in all probability if not a single ounce of polluting material had been discharged into the river. It is well known that the strong and the robust may often live in highly malarial regions without incur-

ring the disease, when the enfeebled will be sure to be afflicted with it. The only question here, is, to what extent has the pollution acted in lowering the vital tone of those living in its vicinity? This question I cannot answer, nor do I believe that any one else can satisfactorily.

Below the mouth of Hop brook I have made no researches the present season, and even at this point a true conception of the actual pollution cannot be had without a knowledge of the summer weather flowage, which in common with the other streams, it has been impossible to obtain the present season. At the mouth of Hop brook there is a large sedgy pond of some hundreds of acres in extent, caused by damming up a few years ago. It was thought at the time by some of the inhabitants that this damming up was productive of disease among those living in immediate proximity to it; whether this was the case or not I cannot say, but I hardly think this cause is in operation yet, except possibly by preventing the oxidation of the polluting refuse discharged above. The larger part of the surface is covered with a rank growth of grass and sedge, etc., that may be in part due to the organic material of the water; in such case it would seem evident that the growing vegetation helps in remedying the pollution.

CHEMICAL ANALYSES OF HOP BROOK WATER.

By HERBERT E. SMITH, M.D.

Number 13 shows that this stream above South Manchester was of good purity, with the exception of a moderate excess of organic matter of vegetable origin (albuminoid ammonia and oxygen consumed), which is probably to be accounted for by the large quantity of dead leaves that were in the water at the time.

Numbers 14 and 15, taken below the village, show that a considerable contamination had taken place, and the condition of the water is variable. While it is quite certain that the water below the village should not be used for domestic purposes, it is impossible to decide from two samples whether the stream is or is not contaminated to such an extent as to become offensive by putrefactive changes.

TABLE IV.—CHEMICAL ANALYSES OF THE WATER OF HOP BROOK.

		Solids.		Chlorine of Chlorides.	Ammonia.		Oxygen consumed, in 30 min. at 100° C.	Nitrogen of		Hardness as CaCO ₃
		Total.	Loss on Ignition.		Free.	Albu- minoid.		Nitrites.	Nitrates.	
13	From stream above village and all mills, Oct. 20th. Clear, very little sediment, nearly colorless.	30.	10.	2.5	0.05	0.14	4.6	0.	0.14	10.
14	Dam on Olcott farm below village, 11.30 A. M. Oct. 14th. Turbid, considerable grayish flocculent sediment, filtrate not clear, yellowish.	86.	10. (?)	6.	0.70	0.50	8.0	0.05	0.48	37.
15	Same place as preceding, 11.30 A. M., Oct. 20th. Turbid, some dark, flocculent sediment, filtered clear, nearly colorless.	82.	24.	6.	8.00	0.27	4.6	0.02	0.10	35.

Figures represent milligrams per litre, equals parts per million by weight.

BYRAM RIVER.

Byram river is a small stream, not over fifteen miles in length, which has its origin in Byram pond in New York and flows through the extreme western part of Connecticut, emptying in the Sound below Port Chester. The last mile of its course is on the State line, and is the only part against which complaint has been made for its contamination, the stream otherwise receiving but little polluting material ; indeed its head waters will be utilized as a source of water-supply for the city of New York. Even here, the contamination is derived from a single source and can have but little if any unsanitary influence.

In the village of Port Chester, on the New York side of the stream, is situated a large stove and plumber's material manufactory of the Abendroth Brothers, one of the largest in the United States. Their refuse material, produced in considerable quantities, consists almost exclusively of furnace ashes, slag and scoria, and the adhering sand brushed from the iron castings. The superintendent of the factory informed me that this material amounted daily to about four cartloads, perhaps a fourth of which is sand mixed with a small quantity of "black lead" and iron, and fully a half of the remainder, as I saw it, is in the shape of slag, cinders, etc., in fragments of large size. The amount is estimated considerably higher by those opposing the firm's present disposition of it. Let us call it say 25 to 30 tons per week. Most of this waste material is disposed of by dumping on the flats of the river below the factory on the Connecticut side of the stream. Not a small area of land has thus been raised above tide water (which here rises seven or eight feet), during the forty years that the factory has thus disposed of their refuse. About half way between the factory and the mouth of the estuary, there is, at present, on the east side of the stream, a mud flat, exposed at low tide, of about five hundred feet in length by perhaps two in width, which some two or three years ago was begun to be so used by the factory as a dumping ground ; but the tide when full, washed out so considerable a portion of the finer portions, that complaint was made by the oyster cultivators below that their business was injured, and an injunction was served upon the Abendroth Brothers prohibiting them from so disposing of their material. This injunction, in force for about two years,

has recently been raised, and the ashes and cinders are disposed of as previously.

This disposition of the refuse, as presently carried on, I believe to be reprehensible, but I do not think it calls for so severe a measure as prohibition. With but very little extra trouble, and comparatively slight expense, it seems to me that these flats can profitably be used for a dumping ground for many years to come with little or no danger of any of it being washed into the stream by the tides. It is only necessary to erect a moderately tight wall bordering the channel, and reaching above tide water. This would involve the outlay of a few hundred dollars, perhaps a thousand, at first, and perhaps necessitate the removal of the refuse by carts, as was hitherto done, rather than by barges, and will meet certain objections of the firm on account of additional expense. Aside from its bearing as a contaminating substance on the stream, however, it seems to me imprudent for the material to be so deposited where more or less of it must silt down into the channel, and obstruct it more or less. It is true that the firm is perhaps more interested in keeping the channel open than any others, still, I do not see how the present practice can do otherwise than tend to make the channel shallower. At present the channel is about five feet deep at low tide, I am told, and I should judge about two hundred and fifty feet wide.

As regards the effect upon the fish, both shell and vertebrated, there can be no difference of opinion that the refuse, such as is here thrown into the estuary, is injurious when its quantity is large. The English commission found that one part added to one hundred and forty of water would kill fish. It is to be understood, however, that the complaint here is chiefly of the injurious effect upon oysters, while in the floats, after having been brought in from the beds and awaiting market. The value of this industry at this place is placed at about five thousand dollars annually, and the estuary below the town is used as a convenient floating place during the spring, summer, and autumn months. The contamination of this water, rendering it unfit for this purpose, would cause considerable inconvenience to the oyster cultivators. That the discharge of the refuse does actually act injuriously upon the shell fish at present, injuring them for food and deteriorating their market value, it is impossible for me to say, but it is my opinion that it may have some injurious influence, be it slight. The subject for the oyster dealers is, how-

ever, further complicated by the projected sewerage works, now in process of construction by the village of Port Chester. The sewage will be discharged nearly opposite where the cinders and ashes are dumped, and cannot help but contaminate the waters for the oystermen's use. Notwithstanding this, it is my opinion that the firm of Abendroth Brothers should be required to take reasonable and proper precautions against unnecessary pollution and clogging of the estuary. I cannot resist the impression that there has been an unnecessary degree of friction between the oystermen and manufacturers, and that there is a middle ground between the two on which both parties might properly meet.

EPIDEMIC DYSENTERY IN THOMASTON.

BY R. S. GOODWIN, M.D.

During the months of July and August, 1887, for the first time in many years, Thomaston was visited with Dysentery in an epidemic form. There were about thirty typical cases, and six deaths. This was not a very severe epidemic for a town of 3500 inhabitants. But the character and symptoms of the disease, its tendency to attack several members of a family at the same time, and its occurrence in a particular locality, viz: the eastern part of the town, render the term epidemic a suitable one with which to characterize the disease. There seems to me, indeed, to be very little difference either from a clinical, anatomical or pathological point of view, between the epidemic and sporadic forms of this affection.

The causes of this disease, as it occurred in Thomaston, were no doubt the same as those operative in other parts of the Naugatuck Valley, where it occurred still more extensively as an epidemic during the summer of 1887. One principal factor was probably the long-continued summer heat, with cool nights alternating with hot days. Another factor in certain cases which came under my observation, was polluted well-water. For instance, in one house containing two families, were five cases of dysentery. Two of these cases, a young woman of 20 and a boy of 7, were dangerously sick three weeks. The other three were middle aged people who were confined in bed about ten days. The well, out of which the patients procured their drinking water, was situated within a few feet of the privy vault, which was a loosely stoned-up excavation in gravelly soil and had not been cleaned out for a long time. A filthy chicken coop was suspiciously near the well. Dirty slops from wash tubs had been habitually thrown upon the ground near by. An old cess-pool, which had been filled with filth and then covered up and abandoned, was situated only a few feet from the well, opposite to the privy. Every

member of the two families who used the water from this well, was sick either with obstinate diarrhœa or with dysentery. Yet it was difficult to convince them that the cause of their sickness was the well-water. It was sparkling and had no unpleasant smell or taste.

The permanganate of potash and sugar tests, however, developed the presence of organic matter to a degree sufficient to condemn the water for drinking purposes. It is to be regretted that no biological or delicate chemical analysis was made. I concluded, with good reason I think, that the specific cause of the dysentery in these two families came from their drinking water.

But I found that it was not always so easy to trace the disease to its apparent source. For example, a family, living on another street in the same part of the town as the above cases, had three members sick with dysentery and two with severe diarrhœa. One of the cases of dysentery, a woman aged 50, died after a two week's illness. Another case, a young man aged 20, was seriously sick for several weeks. The drinking water which this family used came from a never-failing spring of pure water, several rods from the house and free from any contaminating influences. The sanitary surroundings of the house and the condition of the cellar were unobjectionable. The excreta of the sick were carefully disinfected and properly disposed of. The drinking water from this spring was submitted to simple tests for impurities with negative results. Every effort to trace the disease to its source or to discover any specific cause was futile.

Other cases in the same part of the town, i. e., east of the Naugatuck River, came under my observation, of which, unsanitary surroundings or impure drinking water were evidently not the cause.

The ground in this locality slopes toward the river somewhat abruptly, and is filled with springs which saturate it with moisture. If we were to seek for the cause in the nature of the location, we might infer that humidity of the soil is sometimes an etiological factor in dysentery, and that there may be some miasma springing from the moist earth, floating in the air, and affecting the human organism in a way analogous to malarial poisoning.

Out of this hypothetical miasma, the future Bacteriologist may evolve some specific micro-organism, like "the malarial germ of

Laveran," capable of producing epidemic dysentery. But at present, we can only say that nothing is definitely known on the subject, except that the poison is certainly not identical with that of malaria.

In a few of the cases under observation, it was noticed that long continued torpidity of the bowels and the ingestion of masses of indigestible food acted as exciting causes of the attack.

The disease seemed to attack all ages and both sexes alike, but was more severe and fatal among the aged and the feeble. There were isolated cases in all parts of the town. One case, which terminated fatally, occurred at a farm house a mile or more from the village. At this place, a leaky drain pipe passed within six feet of the well. In another case near the center of the village, the cess-pool was located within a rod of the well. But most of the cases were located, as has been mentioned, in that part of the town lying on the east bank of the Naugatuck River and contiguous to it. It is in this locality that a large proportion of the foreign population reside, but the disease was not confined by any means exclusively to them.

It is not proposed in this article, to give detailed accounts of individual cases; but a brief summary of the more prominent symptoms which are common to nearly all, may not be unworthy of record here.

There were three classes of cases, which may be termed the "light," the "moderately severe," and the "severe or fatal." All began with simple diarrhœa, with moderate pain, poor appetite, occasional vomiting, little or no fever, slight lassitude, and from three to six yellow or brown stools per day. On the third or fourth day chilliness developed, followed by slight fever with temperature at 101 to 102. The abdominal pains were now more severe and not easily controlled by opium. Violent tenesmus began to be a notable symptom, and a desire to go to stool every few minutes without relief. There were from twenty-five to fifty stools every day; and in some of the most severe cases, as many as a hundred. These were composed partly of feculent matter, but mostly of blood and mucus. The patient could not sit up, became pale and exhausted and suffered with tormenting and spasmodic pains which were always aggravated while at stool. These terrible pains, which did not yield to opium in any of its forms, except perhaps in dangerous doses, were the most constant and characteristic symptoms of the affection.

In the lighter cases, these symptoms began to diminish by about the seventh day, the frequency of the stools was less, and their character was more nearly normal. The dejections became alternately bloody and feculent; and were discharged with less tenesmus and pain. The anorexia and febrile disturbance disappeared slowly, and convalescence was assured after about the tenth day.

In the moderately severe cases, the patient became more exhausted and emaciated, the nights were sleepless and occupied by innumerable attempts at painful movements of blood, slime and pus. Often there was strangury, and in some cases suppressed urine. The pulse was small, breathing rapid, heart weak; tongue dry, smooth, red and shiny. The abdomen was rarely swollen, but generally flat and tense; the eyes sunken, and the hands and feet were cold. There was very rarely any delirium or unconsciousness, and always very little fever, though the patients complained of great and parching thirst. After about the fourteenth day, the disease seemed to have spent its force in this class of cases, and the return to health was much more gradual and tedious than in the first class.

In the severest forms of the affection which proved fatal, the tenesmus and pain were awful and intolerable; the dejections besides being bloody, became purulent and putrid, with a greenish black color and were very offensive. They were often passed involuntarily and produced excoriations upon the surrounding skin. Then came bed-sores, prolapsus ani, retention of urine, livid lips and tongue; a weak pulse, faint, thready and intermittent; a hoarse voice, cold sweats, thrush, hiccough, spasms of the muscles, heart failure and finally death comes to close the painful scene. Consciousness was generally retained to the last, even in the final moments of collapse. The patients usually died from asthenia of the heart.

In one instance the disease terminated in incomplete recovery or chronic diarrhoea. In this case, the stools were of a partially purulent character for many weeks. There was much emaciation, anæmia and inanition with a general tendency to anasarca.

The only complication with other diseases, noticed during the epidemic, were with rheumatic arthritis which occurred as a sequela in two cases. In both of these cases the knee joints were the only ones affected.

The mortality was a little below 20 per cent.

Nothing was observed during the treatment of the sick which would throw any light upon the practically important question whether the poison of dysentery was transferred from one person to another in any individual instance. No nurse or physician was attacked, and any evidence on the subject of the contagiousness of the disease so far as I know was of a negative character. Every dejection was considered dangerous, and was treated accordingly. It was not thrown into the common privy but into a pit by itself and disinfected by the chloride of lime.

In conclusion, from this sketch it appears evident that the outbreak of dysentery in 1887, at Thomaston, and I might add at every other town on the Naugatuck River, occurred in consequence of the coöperation of several favorable influences. These were a certain season, a certain high temperature, a certain favorable location, unsanitary modes of living and the use of impure drinking water. Nevertheless, infection with a certain specific poison was the sole cause of this disease, and the role played by these influences in its etiology was only to increase the predisposition to the affection by rendering the human organism more sensitive to the action of this unknown poison.

SANITARY REPORT FOR CITY OF WATERBURY.

By C. W. S. FROST, M.D.

Diseases specially prevalent ; small pox in February and March ; measles through March, April, May, and June ; diphtheria moderately through spring months, more severe in September, and epidemic in October. An epidemic of dysentery during the summer.

Small-pox prevailed in February and March to the extent of six cases with three deaths. The first case was in the person of Michael Fahey, aged 40, an inmate of the almshouse from Jan. 12th, 1887. On Feb. 7th he complained of not feeling well ; spent most of his time in bed from this on. Feb. 11th, slight chill, followed by a moderate fever for three or four days. Feb. 14th, faint eruption noticed on forehead and face. Patient isolated. Feb. 15th, eruption extending to chest, arms, and thighs. No head or back-ache. Feb. 16th, tempt. 102° , pulse 110. Slightly delirious. Consultation. Pronounced small pox, and removed to pest house. Feb. 17th, large vesicles, size of large peas, slightly cloudy on face. Fever not so high. Feb. 18th, vesicles supplanted by pustules on face and neck. Some umbilication. Vesicles confluent on hands and arms. Feb. 19th, morning. Moderate fever. Patient appeared brighter at times. At noon had several sinking spells, from which he rallied. A few of the pustules on face broken. Sank and died at three o'clock P. M. Characteristic odor was wanting throughout the case, and at no time was there any itching.

Inmates of almshouse, 88 in number, vaccinated. Arms "worked" in all but six or seven persons. Three of these being under three years of age. Among those who had well developed vesicles from vaccination, were several who had small-pox years before, and who carried the marks of same on face and body. Quarantine at almshouse was established Feb. 16th. The house

was thoroughly disinfected and fumigated, and all inmates inspected twice daily for any signs of the disease.

Feb. 23d, David Curtis, aged 35, and Patrick Crannell, aged 45, complained of not feeling well. Both isolated. Both had well developed vesicles from vaccination on their arms. Feb. 25th, vomiting, and some fever, in both cases. Feb. 28th, faint signs of an eruption could be seen, and they were immediately sent to the pest-house. Arms went on working. Curtis developed a hemorrhagic form of the disease and died March 4th, the fifth day of the eruption.

The eruption in the case of Crannell became confluent on the face, neck, and chest, and semi-confluent on arms and hands. He died March 5th, the sixth day of the eruption. On March 1st, Michael McCloskey, aged 60, another inmate of almshouse had considerable gastric irritation and a slight fever. March 2d, signs of an eruption appeared, and he was sent to pest-house. This case was a well-marked varioloid, there being perhaps one hundred pustules developed on the entire body. The greatest number being on hands and feet. This case ran a regular course and was discharged from quarantine April 4th. Fifth case. Thomas Connerty, aged 30, discharged from county jail Feb. 1st. Came direct to almshouse where his family was being cared for. Remained there three or four days, when he left, and went to work in a large factory in this city. Tuesday evening, March 1st, was found by the health officer at his boarding house, with a well marked eruption four days advanced. Immediately sent to the pest-house. Eruption appeared Saturday morning, Feb. 26. He worked all that day in the shop, among thirty men in a large room. He spent Sunday as usual walking about town. Worked all day Monday, and went to his work on Tuesday morning (March 1st), but was sent home by the overseer, he fearing that the eruption which now thickly covered Connerty's face was small-pox. Connerty proceeded to visit a number of the saloons, and by four o'clock in the afternoon was very much intoxicated. He continued to roam around, and in the evening was taken by a friend to a physician, who pronounced his case small-pox, and notified the health officer. This case ran the regular course of what has been classified as "*variola discreta*." He made a good recovery, and was discharged from quarantine April 25th.

Sixth and last case. D. Harrington, aged 38. Slight eruption March 5th. Varioloid. Discharged March 30th.

Quarantine was continued at the almshouse until March 19th. The house having been repeatedly disinfected. It was white-washed a number of times, and painted from cellar to garret, all bedding and clothing being burned. Each inmate was supplied with new clothing from hose, to cap and shoes. The peculiar features of these cases are, that, at no time was there any head or backache, no itching, and only in the case of Connerty was there any of the characteristic odor. It was also remarkable, that so few cases developed out of the eighty-eight persons (about fifteen of them being children under twelve years), exposed to the disease. Only one of the victims occupied a room by himself. In the large room where the others slept and developed the disease there was about sixteen single iron bedsteads. The fact that no cases developed from that of Connerty's, was very fortunate, as he exposed all of his shopmates for two whole days, and for two more had the freedom of the city. His roommate and bed-fellow at the boarding house was vaccinated and his arm "worked" beautifully. He escaped the disease as did the ten other residents of the house. Nothing has been said in this report concerning the cause of this outbreak of small-pox, because we have been unable to satisfactorily account for it. The first patient had been an inmate of the almshouse for nearly one month. He had previously worked on the new sewers, which were being constructed at that time. By the fall of a rock his knee was injured and for that reason he was sent to the almshouse. While there he was very little outside of the house, and never outside of the door-yard. He was therefore no more exposed to the poison of the disease than any of the other inmates. Of course the cases which followed his resulted from it.

Intestinal diseases have prevailed to an unusual extent during the past summer months. The deaths from diarrhœal diseases by months is as follows: April, 2; May, 1; June, 10; July, 81; August, 43; September, 14. Total, 151. Males, 81. Females, 70. Of these dysentery was the cause of death in 109 cases, distributed as follows: April, 2; May, 1; June, 9; July, 55; August, 32; September, 10. Total, 109. Males, 50. Females, 59. There was at least one thousand cases of diarrhœal diseases. Thus it will be seen that one-thirty-third of the population of our city were attacked by these diseases. The cases were not confined to

any one section, but occurred alike in the thickly settled districts near the centre, and in the suburbs where the houses were widely separated, alike on high and on low ground. The larger percentage of deaths, however, was in those districts where the houses were crowded together. The homes of the poorer classes, where a number of families occupied one house, and consequently more filthy surroundings.

The deaths by wards were : First Ward, 31 ; Second Ward, 14 ; Third Ward, 24 ; Fourth Ward, 66 ; outside city limits, 16. It is apparent from the above, that by far the largest number of deaths were in the Fourth Ward. This ward contains the homes of the majority of the poorer class of the city. The Mad River bisects it, dividing it into two nearly equal parts. The part east of the river is called the Abrigator. Here the ground rises rather abruptly from the river. Along the river and diminishing as the distance increases, we had our greatest number of deaths. River Street follows the course of the river for about one-half mile. There was not one house (and it is thickly settled) on this street that escaped dysentery. Emptying into the river at the upper end of this street is the sewer of quite an extensive district. Further up the stream at Dublin Street, the sewer of another section discharges its contents into this river.

This fact was undoubtedly a powerful factor in the cause of the epidemic. Out of the 151 deaths there were but fourteen in houses connected with the sewers, or about 9 per cent. This fact is certainly a strong argument in favor of sewers. On the other hand, the death-rate in the Fourth ward is a strong argument against sewage being disposed of, as it is at present; and, sooner or later, it will have to be carried entirely out of the city and disposed of by filtration. There is a large tract of land below the city which would be suitable for this purpose. Other causes for the epidemic were undoubtedly the extreme hot weather and the great humidity of the atmosphere, which prevailed for many days, in fact as long as we had the wind blowing from the southeast. This wind prevailed all through the spring and summer, which is contrary to our usual prevailing wind, which is from the northwest. It has been said that humidity is a state of the atmosphere which most favors decomposition of organic matter in the soil. Annesley says that "all situations which furnish exhalations from the decay of animal and vegetable productions under the operation of a moist state of the atmosphere will always occasion dys-

entry in the predisposed subject—circumstances which, with other causes, combine to generate the disease.” Crowded tenement houses, bad drainage, filthy surroundings, and miasm are other causes that have predominated.

Scarlet fever has occurred in only six cases, with one death. These were in March two cases, one death. May, two cases. September and October, one case each. Last year we had twenty-two cases and three deaths.

Measles prevailed extensively in March, April, May and June, there being probably four hundred cases. The children attending school, of families where the disease existed, were in all cases detained at home, and readmitted to school only on the certificate of the Health Officer. There was a small percentage of death, it being in all cases the result of complications.

Typhoid fever has been with us in a moderate degree all through the year, there being about the same number of cases as last year. Malarial diseases about as last year.

Diphtheria.—Last year we had 35 cases and 11 deaths from diphtheria. This year we have had only a slight increase from November 1, 1886, to August, '87, when the number of cases begins to grow alarmingly, showing an epidemic to be in existence, making for the present year 151 cases, with 39 deaths. The following table shows the number of cases and deaths for the last two years:

YEAR ENDING NOVEMBER 1ST, 1886.												
	1885.	1885.	1886.	1886.	1886.	1886.	1886.	1886.	1886.	1886.	1886.	1886.
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.
Cases,	4	3	2	1	3	2	2	3	4	1	5	5
Deaths,	1	1	1	0	1	1	0	0	1	0	4	1
												11

YEAR ENDING NOVEMBER 1ST, 1887.												
	1886.	1886.	1887.	1887.	1887.	1887.	1887.	1887.	1887.	1887.	1887.	1887.
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.
Cases,	3	8	0	2	3	9	1	8	5	10	17	84
Deaths,	1	2	0	2	2	4	1	1	3	3	7	13
												39

Thus it will be seen that 101 of the 150 cases have occurred in the last two months, and twenty of the thirty-nine deaths. A large number of cases of the present epidemic can be readily traced back to cases that occurred in August. Cases in which little or no regard was paid to the recommendations of our Health Board, as to the visiting of houses where diphtheria existed. For example, the mother of a large family, with perhaps a shawl over her head, would visit a diphtheria patient, remain an

hour or so, and return to her family, carrying the germs of the disease to her own children. Most of the cases have been mild at first, so no doctor would be called. The other children of the family attending school meanwhile, and they in turn communicating the disease to their seat-mate, and other children that they came in contact with. One public funeral took place, and from it several cases developed in a part of the city remote from the others.

Most of the cases have been in the northern part of the city. The public school house of this district was personally inspected by the Health Officer and Sanitary Inspector, the latter part of September, and a bad state of affairs found to exist. There was no traps under the set-bowls in the main building and two large privy-vaults full of excrement were found situated within thirty feet of the windows of the building. It was ordered by the Board that this state of affairs be immediately remedied.

On October 28th, owing to the prevalence of diphtheria, and the non-observance of the rules of the Board of Health by the people, and the seeming reluctance on the part of certain physicians to report cases promptly, as prescribed by the ordinances, a special meeting of the Board was convened, at which a set of resolutions were passed bearing on the case; and it was further decided to placard every house in which a case of diphtheria should occur. This has been done, and the result has been that the rules relating to such cases have been much more fully heeded. We have acted promptly in every case reported to us. Reporting immediately to the Superintendent of the Public Schools the names of pupils residing in buildings where the disease existed.

One case occurred in St. Margaret's School, which has a large number of young lady boarders and over one hundred day scholars. The school was immediately closed and every precaution taken. No other cases appeared.

As far as the cleanliness of the city is concerned, it can be said that it was never as clean as at present, for this reason, beginning in April, when your reporter assumed the duties of the Health Officer, the work done is as follows: Number of privy nuisances abated, 245; privies abolished, 6; cess-pools and drains, 155; yards (containing garbage, etc.) cleaned, 278; sewer-connections ordered, 65; drains into Great and Little Brooks abolished, 44; dead dogs, cats, etc., removed, 13; pig-pens abolished, 15; total, 821. The greater part of this work was done in April, May, and June.

It will be seen from the above that the Board of Health were not idle. Much, however, remains to be done in this line. In August the Court of Common Council passed "An Ordinance Regulating the Removal of Garbage and Offal." Two teams were immediately employed and the work carried out as thoroughly as possible. It being a new ordinance the number of people served was comparatively small. By the first of the year we expect to have this department in first-class order. Another ordinance of twenty-four sections, passed in August, is one relating to the plumbing, drainage, etc., of houses, in which it is provided that—

"SECTION 1. Before proceeding to construct any portion of the drainage system of any building erected after the passage of this ordinance the owner shall file with the Board of Health and receive their approval of a plan showing the entire house system from its connection with the sewer to the upper end. Notice shall then be left at the office of said board when such work will be ready for inspection."

With these new ordinances in addition to those before in force, the health of the community certainly should be better than ever before. The sewers have been considerably extended during the year. The Board of Health have recommended them for several streets where they were especially needed, and in every instance they have been ordered constructed by the "City Fathers." There are a number of sewers in process of construction at present, and we trust that by the end of another year we shall have a sewer in every street of any importance in the city.

REMARKS
ON THE
RECENT OUTBREAK OF TYPHOID OR
ENTERIC FEVER AT SOUTH-
AMPTON, L. I.

BY F. E. BECKWITH, M.D.

This paper presents the facts in regard to the recent outbreak of typhoid fever at Southampton, points out sanitary defects constantly present, and urges the importance of absolute cleanliness in the management and disposal of all filth and refuse. It is only by individual effort that the water supply can be kept free from contamination, but, as appears in this sequel, this is not only possible, but practicable. The sanitary suggestions which close the paper apply not only to Southampton but to every small seaside resort in a developing state where there are similar conditions of soil, surface of country, and water supply.

Every physician can, in a desultory way, contribute a few facts to sanitary knowledge, but his opinion can never have much weight; therefore, outside of the facts, the analysis, and the cases, a large part of what follows is made up of quotations from undoubted sanitary authorities. Dr. Hill (*Lancet*, October 20, 1887), writes: "Every hygienist has deplored the non-existence of a physiological and pathological institute, properly furnished for the scientific investigation of many questions affecting public health."

The village of Southampton has a population of about twelve hundred, together with, in the summer, about a thousand visitors, composed largely of children and young adults. The summer population live in boarding houses, and cottages (of which there are about eighty), partly rented and partly owned by their occu-

pants. All are subject to the same sanitary conditions and surroundings, and all drink water pumped fifteen or twenty feet from a common source—what may be called surface water. All live upon the same level, so that none can be said to drain directly upon his neighbor. The soil throughout is composed of sand and gravel, resting upon clay fifteen feet below, allowing of rapid percolation of rain water and other fluids to the impervious clay layer, upon which they collect and remain.

All the village, including the eighty cottages, dispose of their sewage and waste independently, either upon the surface or in cess-pools, there being no system of drainage into the lake or ocean. Most of the cottage cess-pools, and those more recently constructed in the village, are from twelve to sixteen feet deep, made of brick lined with cement, and are water tight, while the rest, which have no brick or cement at the bottom, are in reality only wet earth pits. (1) The villagers more often drain their waste water upon the surface near their houses, and use for the reception of all excremental matter the old-fashioned privy, kept dry and odorless by the free use of earth, in this way getting along without cess-pools. A very few of the cottagers employ this method. (2) Some of the cottagers, possibly the majority, drain the waste water of the house and all excremental matter into the cess-pools, using water closets with a large amount of water, and emptying the cess-pools as often as once a week. (3) Others of the cottagers, and a few of the villagers, drain the waste water and fluid excrement into the cess-pools, and for other excrement use dry earth in boxes or pails, which are emptied daily. Of these three methods, the first or village method, which is unsightly, is, when properly carried out, the safest; the second, dumping on the surface near the houses, is bad; and the third, if used with care, is moderately good; both the second and third methods are unsafe, if the cess-pool is leaky, has an unsound bottom, or none at all, for all drainage takes place into the sand at the level of the water supply, which can hardly escape contamination. The contents of all the cess-pools are pumped into a tight wagon and poured upon the ground in the immediate neighborhood of the houses, there being no common dumping-ground at a distance. The contents of the boxes or pails, are carried away daily, but where is dimly known. The emptying of the cess-pools is done at night by careless workers who, entirely contrary to orders, have been known to dump within less than sev-

enty-five feet of the houses and upon the roadside. The stench attending the pumping and dumping is, if appreciated, unbearable, hence the selection of the hours of midnight and early dawn; a selection bad because carelessness is thereby undetected, and because the odors fall upon a sleeping community in the hours when vitality is at its lowest point.

“In the night and early morning there is no breeze to keep the air in motion, and the density of the air and the deposition of dew prevents a free admixture of the impure with the higher strata of pure air.”—“Sanitary Examinations of Water, Air and Food.” Fox, p. 230.

“Families, visiting the seaside for the benefit of their health, do not desire to inhale the exhalation from hundreds of cess-pools, however much they may be diluted by the sea breezes.”—“Sanitary condition of Margate.” *Lancet*, July 30, 1887.

Other sources of stenches are the pigstys in the village and elsewhere, and a few heaps of rotting manure. The cess-pools, especially those used for all excremental matter as now managed, are a nuisance, and perhaps this term may justly be applied to the pigsty and the manure heap.

“All unpleasant smells are to a certain extent deleterious, although infinitesimally so perhaps.”—Fox.

The summer of 1887 was characterized by periods of intense heat followed by heavy rains, during which every form of soluble filth was washed into the source of the driven wells, to wit, the surface water.

On the other hand, Southampton, which is near the open sea, enjoys the benefits of broad spaces, strong sea breezes and uninterrupted sunshine. There is no crowding of houses or cottages, and no mobs of transient visitors. Its food supply is good, fish, meat and vegetables, arriving in excellent condition and in abundance. The milk, while not rich, is good, and carefully and promptly served.

In a summer resort one looks for first rate health, and if it be only second rate the attention is at once aroused to search for the explanation or causes. Second-rate health may be said to exist when diarrhœa, digestive ills, general debility, and attacks of lassitude with headache occur; such disorders indicating that the sanitary conditions of a place are unsatisfactory and approaching the danger line, while the occurrence of one or all of the graver disorders—dysentery, diphtheria, typhoid fever—indicates the

crossing of the danger line. Now, preceded by the minor evils referred to, toward the close of the summer, typhoid fever made its appearance in Southampton. In contrast with this, the summers of the preceding two years presented an almost entire absence of these lesser evils and freedom from every grave disease.

The history of the outbreak is briefly as follows:

Dr. John Nugent writes: "I was called to see Mr. Waters (near the Shinnecock Reservation about three miles from Hildreth's) about August 25th. He died September 12th, after an illness of five or six weeks. My notice was called to his daughter September 6th. Mrs. James A. Hildreth was taken sick September 20th. I was called to see Mr. George Folk, the water-mill man (about two miles from Hildreth's), October 4th. He had been sick a week then. I had another case about two miles west of Pond Quogue lighthouse. I was called there September 22d, finding patient had been sick about a week. There have been quite a number of cases up that way since, and two or three deaths. I have not had a case of low fever in the past year that I can recall."—Extract from letter November 10th, 1887.

Dr. P. Brynberg Porter, in the latter part of August and September, attended Miss E., sick with typhoid fever of a moderately severe type, at Mr. Hildreth's.

On the 16th of July I was called to see Mr. G. C. at James A. Hildreth's boarding house. He had been sick a number of days, and after a week's observation I concluded he had not, as I had feared, typhoid fever, but remittent fever, with sharp rises and falls in the temperature, and constipation, and cured by brisk cathartics and quinine. Mr. C. was in perfect health when taken sick, was subject to attacks of remittent fever, and had been in Southampton two weeks when he was suddenly taken sick in the way described. This case, which is out of place here, is described and included for the reason that many erroneously assumed it to be typhoid fever.

On the 11th of August I was called to see Miss de L. (at Mr. Hildreth's), who was suffering with fever and headache. On the third day pneumonia (croupous) developed in the upper lobe of the left lung and ran a course of fourteen days, masking the typhoid fever present, which gradually became characteristic, until it was evident that it was the chief malady, the pneumonia being a complicating or intercurrent affection; and from the two diseases, but chiefly from the typhoid fever, death occurred on the 11th of September.

On the 17th of August I was called to see Miss C. (at Mr. Hildreth's), who in the best of health was suddenly taken sick with a chill followed by fever. At first I thought that she had remittent fever, but I soon learned that free doses of quinine had no beneficial effect on the disease, which became gradually a typical case of typhoid fever of moderate severity.

In addition to these cases I saw at Hildreth's in August, three patients who suffered from digestive disturbance with complete loss of appetite and frontal headache, and recovered in from seven to ten days.

From Mr. F. O. de Luze I received the following:

"I have seen Mr. R. who also boarded at Hildreth's. On his return he was ill with malarial fever for ten days, and is still under treatment (September 15th), and looks much pulled down. His sister (the youngest) is ill now in bed and has been so since August 14th, and her doctor says that she has just escaped typhoid fever, and that both cases were contracted at Southampton. Mr. R. never used ice in the water, but drank much water and milk."

On the 25th of August Miss S., at the Fonday Cottage, on the lake, one-half mile west of Hildreth's, was taken sick with fever and constant frontal headache, with feeble and rapid action of the heart, ending in prolonged sickness in bed. The diagnosis after a few days observation, was typhoid fever of mild type. Miss S. drank milk, and water from the basement well of the cottage, but no water from the Hildreth well or milk from his farm. There is no evidence that the milk, which was supplied by Goodale, was ever impure or in the least contaminated.

Scattered about during August and September there were a number of cases of moderately severe and obstinate diarrhœa, which were attributed to the use of impure water, as no sufficient cause could be found either in intense heat (the latter half of August and September were cool), or improper diet.

At Seamarge, one-quarter mile south-west of Hildreth's, we suffered from digestive disturbance, with obstinate colic and diarrhœa, and persistent nausea, which could be attributed to nothing except the water, and this was finally sent to Dr. Martin for analysis.

At Mr. Hildreth's a cess-pool, without a bottom of brick or cement, receives all the waste water (a large amount), and allows of immediate drainage into the ground at the level of the water supply. Connected with the cess-pool, at the south end of the

hall, there is a shallow sink into which waste water is constantly emptied. All fluid excremental matter is thrown upon the ground at a safe distance from the well, and all solid excremental matter is deposited in privies supplied with earth, which renders them dry and odorless. There being no leak from a drain directly into the well, its contamination, which took place, can be explained only by percolation through fifty feet of sand. As this occurred there is no reason to doubt that contamination could extend further, and I learn that the analysis of the water from the new well, one hundred and fifty feet from the house, indicates similar impurity.

"The cess-pool at the Fonday Cottage has no cement at the bottom, only on the sides ; it stands a little lower than the house and the ground slopes from it to the lake. (The driven well is in the basement of the house). Last winter the cess-pool was thoroughly cleaned and left open until spring. There is one water closet and bath tub on the first floor in the corner nearest the cess-pool, and one sink room on the second floor, these with kitchen sink and wash tubs drain into the cess-pool. There is also an earth box outside, as the water closet is only a small one, and we had only a small tank of rain water. New pipes were put in last summer. We never had any smell from the sinks, but had to pour pails of water down the closet when the water was low."

It is evident that contamination of the surface water from the cess-pool could easily take place, and, as the analysis of the basement well water indicates, it did take place.

At Seamarge, the cess-pool, one hundred feet from the house, is made of brick cemented thoroughly, and is water tight. It receives all the waste water and fluid excremental matter, but no other excremental matter, which is deposited in earth boxes and removed daily. In July the waste pipe became plugged, allowing leakage upon the surface of the ground twenty feet from the driven well. From this or some other source, as is shown by the analysis, the well water became impure.

A comparison of the analyses of these three waters shows a little difference in the degree of contamination only, and in each case the impure water produced sickness, so that it is probable that the boarder's at Hildreth's would have suffered equally severely if they had been either at the Fonday Cottage or at Seamarge.

At the Waters' place there is no cess-pool proper, tapping the ground twelve or sixteen feet to the water level, and the drinking water comes from a spring. The analysis indicates very little or no drainage into the source of the spring, which may be protected by the trend of the clay layer between the primitive cess-pool and the spring, being away from instead of towards the latter. It is worthy of note that there are no surrounding sources of contamination, in the shape of cess-pools, as in the other cases.

I know nothing of Mr. George Folk's sanitary surroundings or the condition of his drinking water, or of the sanitary surroundings and water supply of the Pond Quogue lighthouse case, or of the more recent cases, referred to by Dr. Nugent, in that neighborhood.

Lake Agawam receives no drainage and is subject to contamination only from leaky drain pipes or cess-pools, which surround it, and surface filth washed into it by heavy rains.

The life-saving station has no cess-pool and uses an old-fashioned privy. The contamination of the water comes from leakage from surrounding sources of impurity, the drains and cess-pools.

The water from D. Burnett's well at Wickapogue, a little east of Hildreth's, was analyzed by request of Dr. Nugent, who refers to the well in the following words: "There are willow trees not far from the well, and in summer the water smells so bad they can not use it; the roots grows into the well."

Having briefly related the cases and described their sanitary surroundings, where shall the explanation or causes of the fever, around which the lesser evils probably also cluster, be sought for?

(1) It did not spread from the first case by contagion, for it is universally believed to be not contagious from person to person. "But the most remarkable fact is what follows: Since 1861 for nine years 3555 cases of enteric fever have been treated along with 5144 patients not suffering from any specific fever [in the London Fever Hospital]. From 1871 to 1882, 1795 cases of enteric fever have been admitted and treated in the same wards with 982 cases of other diseases, no special precautions being taken, and not one of these became infected."—Murchison: "The Continued Fevers of Great Britain," p. 462. By contagion none of the cases outside the Hildreth's house could be explained.

(2) There is no evidence that it originated from the use of contaminated food or milk.

(3) Its origin and spread has been briefly and simply explained by saying that Mr. G. C. had a low fever with diarrhœa, contracted in New York ; that by his dejecta the Hildreth's well became polluted ; that upon his linen the poison or germ was carried to the Waters family (who took in washing), draining with the waste water into their spring ; and that it was carried in Goodale's milk from Hildreth's to Miss S. in the Fondéy Cottage.

This explanation, attractive from the fact that it limits the water pollution to Hildreth's well and implies importation of the disease, has been eagerly accepted, but it is unfortunately at variance with the facts.

The nature of Mr. G. C.'s illness is stated in the history of his case. He writes : " My linen was never washed by the Shinnecock Indian " (Waters).

Mr. Jas. A. Hildreth writes : " I have never sold milk to the Goodales. They have not washed cans from my well nor used the water in any way."

" The fever is occasionally believed to be introduced into a house by a newly-arrived person, when it really has a local origin from which the stranger naturally suffers first."—Murchison, p. 364.

(4.) It could have arisen from the use of water contaminated with sewage containing typhoid poison from unrecognized cases occurring during the preceding winter and spring, the germs living on and doing no harm until carried into the water supply by the rains of the middle and late summer. It is impossible to exclude the occurrence of contamination in this way and equally impossible to trace it. Dr. Nugent says that he had no doubtful cases of typhoid or low fever and knew of none in the winter and spring. Owing to the grave illness of the late Dr. Hallock it was impossible to get an expression of his experience. Possibly doubtful cases did occur and it is perhaps possible that the typhoid poison, be it a bacillus or animal matter in dry form, is endemic here as in most country towns, and that after very hot weather or prolonged drought, it is by heavy rains washed into the water sources, or else slowly leaks in from defective drains or cess-pools.

(5.) It could have arisen from the use of water polluted with sewage only, the pollution being limited to no one locality.

“ Although in large towns it may be difficult to exclude the possibility of contagion, on turning to the history of circumscribed epidemics in country districts, it is found to be often impossible to attribute the first appearance of the disease to contagion. It is not uncommon for the inmates of an isolated country-house to be seized with enteric fever, although no case has occurred within many miles, and there is no evidence of importation of the poison.

“ In the admirable report of the medical officer of the Privy Council it will be found that the experience of many years repeats again and again the general lesson that enteric fever denotes ‘ excremental poisoning ; ’ while the president of the Society of Engineers has recently declared that, having examined many hundreds of houses in which enteric fever had occurred, he had in every instance been able to trace the outbreak to some unlooked-for defect in the drainage. But there is not the same unanimity of opinion as to how the poison appears in the sewage. Many adopt the view taught at Munich for more than thirty years by Prof. F. von Gietl that the poison, although contained in sewage, is always derived from the excreta of an individual already suffering from the disease, a drain being merely the vehicle for its propagation or, in fact, a direct continuation of the diseased intestine ; while others believe that the poison may be generated in the sewage independently of typhoid excreta. The solution of the question is undoubtedly beset with many difficulties.

“ During the last fifteen years, however, I have met with few examples of enteric fever, which, on investigation, could not be traced to defective drainage, the explanation of which was often unknown to the inhabitants of the infected locality. Enteric fever is constantly appearing where decomposing sewage is present, but where every effort of acute observers fails to trace the presence of typhoid excreta.

“ An increased rainfall sweeps away the impurities to which the origin and spread of the disease are in drained towns mainly due ; but in undrained places it may conduce to an outbreak of the disease, by washing these impurities into the water used for drinking purposes, as happened at Festiniog in 1863 and in Dundee in 1864.”—Murchison, p. 449, *et seq.*

“ The waters of wells are greatly influenced by (1) height of the subsoil water, which is always varying ; (2) by the amount of water that is passing through the subsoil of a country ; and (3) by

heavy downfalls of rain or periods of drought. I have many times found a water pure at one time and impure at another, and this occasional pollution of a water is often due to the periodical washing of filth into a well by heavy rains. The disagreement in the opinions of able analysts respecting the purity of samples of water, taken perhaps within a short interval of time from the same well, is often due to these causes, which are not sufficiently recognized.”—Fox, p. 61.

“The experience of Lausen (where filtration through a mile of earth occurred) seems to prove beyond a doubt that the poison of typhoid may undergo what appears a very efficient natural filtration without losing its activity.

“It is more than doubtful whether there is any absolute safety in obtaining water from deep wells. The Dudlow Lane well, near Liverpool, having a total depth of 443 feet, was fouled by percolation from cess-pools, and percolation from a defective sewer would certainly prove equally disastrous. Surface wells are not now regarded as at all safe, but our suspicions with regard to them were not aroused until after the introduction of the plan of mixing water with putrescible matter. There was no soakage from an old-fashioned dry pit. There must be soakage from a cess-pool or ‘dead-well.’ The only way of securing pure water is to make sure that there is no fouling of water sources.”—*Lancet*, July 23, 1887.

“Some may triumphantly observe that they have been endangering their health during a great many years, and are not, to their own knowledge, at all the worse for the filth that they have taken with their water. They conclude, therefore, that impure water, like tea which the old woman of ninety was informed was a stealthy poison, must be exceedingly slow in its action.

“Mr. Simon, who rightly insists upon a high standard of purity for drinking water, in his second annual report to the city of London, observes that : ‘ We cannot expect to find the effect of impure water always sudden and violent. The results of the continued imbibition of polluted water are indeed often gradual, and may elude ordinary observation, yet be not the less real and appreciable by close inquiry. In fact it is only when striking and violent effects are produced, that public attention is arrested : the minor and more incidious, but not less certain evils, are borne with the indifference and apathy of custom.’

"All waters, even the purest, contain some organic matter. The excess is alone objected to ; and especially that of animal origin, which is especially prone to pass through certain putrefactive changes.

"Thousands are still to be found who believe that if a water is bright and clear, and not unpleasant to the taste, it must be good ; whilst it has been proved, over and over again, that such a water may be polluted with unspeakable filth, and that an excessive brilliancy of a water is a suspicious sign."—Fox.

The following analyses were made by Dr. Edward W. Martin, of the School of Mines, Columbia College, and Prof. Herbert E. Smith, of the Medical Department of Yale University.

SCHOOL OF MINES.

COLUMBIA COLLEGE.

NEW YORK.

Results of Analyses of Samples of Water from Southampton, L. I.

(Figures indicate grains per U. S. gallon of 231 cubic inches.)

	2294	2323	2306
Appearance, etc. -----	{ Clear Greenish.	{ Clear Bluish.	{ Clear Greenish.
Odor, heated to 100° F. -----	Faint Musty.	None.	None.
Chlorine in Chlorides -----	1.4993	1.5978	1.5990
Equivalent to Sod. Chl. -----	2.4726	2.6365	2.6365
Phosphates -----	Traces.	Traces.	Traces.
Nitrites -----	None.	Traces.	Faint traces.
Nitrogen in Nitrates and Nitrites ---	0.1888	0.3265	0.1440
Free Ammonia -----	0.0005	0.0017	Traces.
Albuminoid Ammonia -----	0.0029	0.0040	0.0005
"Hardness" Equiv- alent to Carbonate	2.0411	3.7900	1.5162
of lime ----- before boiling.	1.8952	3.5689	1.5162
Organic and Volatile (loss on igni- tion) -----	2.9159	1.9828	1.7495
Mineral Matter (non-volatile) -----	20.1197	6.9981	4.0822
Total Solids (by evaporation) -----	23.0356	8.9809	5.8317

The samples were marked as follows :—

No. 2294—Hildreth, September 19, 1887.

No. 2323—Fondey, November 1, 1887.

No. 2306—Seamarge, September 28, 1887.

No. 2294. This sample of water appears to be contaminated with sewage and is not suitable for domestic uses.

No. 2323. This sample of water cannot be considered as satisfactory in quality. I should recommend boiling before using it for drinking purposes.

No. 2306. This sample of water must be regarded with suspicion. If necessary to use it for drinking purposes I should recommend boiling the water.

EDWARD W. MARTIN.

YALE UNIVERSITY.

DEPARTMENT OF MEDICINE.

NEW HAVEN, CONN.

Results of Analyses of Samples of Water from Southampton, L. I.

Received from Dr. F. E. Beckwith, November 9, 1887.

(Figures indicate milligrams per litre, or parts per million of water.)

	1	2	3	4
Total solids (by evaporation)	122.	95.	84.	39.
Loss on Ignition	53.	31.	24.	17.
Chlorine of Chlorides	41.	31.	30.	10.
Free Ammonia	0.56	0.12	0.01	0.02
Albuminoid Ammonia	0.44	0.07	0.06	0.02
Nitrogen of Nitrites	0.	0.	0.	0.
Nitrogen of Nitrates	0.25	1.09	0.08	0.33
Oxygen consumed (from permanganate in 30 minutes at 100° C)	6.59	0.09	0.12	0.05

The samples were marked as follows:—

No. 1—Lake Agawam.

No. 2—Life Saving Station.

No. 3—Wickapogue Burnett's.

No. 4—Waters.

No. 1 was turbid and somewhat yellowish; No. 2, not clear; but Nos. 3 and 4 were clear. No. 1 is impure to a high degree. No. 4 cannot be objected to from a chemical standpoint; but with regard to Nos. 2 and 3, it appears that while the results do not indicate the presence of a quantity of organic matter which is necessarily objectionable as such, the waters should be regarded with suspicion and the question of their use be decided from a consideration of the probable source of the impurity; if this be a cess-pool or a privy, the water should be condemned.

HERBERT E. SMITH.

One of these waters, No. 1, Lake Agawam, was analyzed in 1885 and pronounced pure.

Dr. G. V. Poore, in an address on the shortcomings of some modern sanitary methods, writes : " The principal aim of sanitarians has ever been, and will ever be, the securing for the masses of the people the two chief necessities of life—pure air to breathe, pure water to drink. Whether or not we are able to secure these two necessities depends very largely upon the method which we adopt for the treatment of putrescible refuse.

" It has been the wise custom in all ages of the world to dispose of putrescible matter by burial in the earth. Dead bodies in all ages have been buried, and the greatest of all law givers and sanitarians, Moses, gave most explicit directions that excremental matter should be treated in the same way. The latest advances of modern science seem to show that in this particular Moses was absolutely in the right.

" The farmer may feel certain that if he buries his organic manure directly it is produced, it will not be wasted. It will not give off ammonia to the air, nor will the juices be washed away by rain to the same extent as when it is left above ground to be a nuisance. There seems to be no doubt whatever that all heaps of manurial matter which give off ammonia and other gases to poison the air, and perhaps do more serious mischief which we know not of, are allowing valuable matter to escape, which ought to be undergoing oxidation in the earth. There can be no doubt whatever, that to the agriculturist stench means waste ; and it is to be hoped that when the bucolic mind has imbibed this great and important truth, the country will be more evenly pleasant than it is.

Most of the shortcomings of modern sanitary methods are due to the fact that in our dealing with organic refuse we commit a scientific error, i. e., we pursue a course which is in opposition to natural law. When organic refuse is mixed with water, it undergoes changes which differ widely from the changes which it undergoes when mixed with earth. The most favorable amount is about 33 per cent., and if the moisture rise above or sink below this amount, the process of nitrification and the formation of carbonic acid is hindered.

" In the treatment of putrescible refuse, so that it shall not be a danger nor an annoyance, what we have to aim at is nitrification rather than putrefaction, and it is certain that by mixing

with water putrefaction is encouraged and nitrification delayed. It seems to be almost incontestible that the proper course to pursue with regard to organic refuse—putrescible matter—is the very reverse of that which we do pursue. We clearly ought to encourage oxidation and make putrefaction impossible.

“Putrefaction is certainly a great cause of ill-health. It is the putrefaction of organic refuse mixed with water in cess-pools and sewers that causes that long list of ailments which we ascribe to the inhalation of sewer air. The opinion is held by many that the dejecta of typhoid patients and cholera patients do not become dangerous to others until putrefaction has set in, and such an acute observer as the late Dr. Murchison held the opinion that common putrescible changes taking place in dejecta were a sufficient cause of typhoid, independently of the admixture of any specific poison. The putrefaction of organic refuse, when mixed with water, has, I think, been the chief cause of the development of modern sanitary ‘progress.’ Our forefathers were not given to this method of treating putrescible matter. House slops trickled along open gutters, and excremental matters were deposited in dry pits.

“Only the other day I visited a lone farm-house which a friend wished to take for the summer, and I found that the proprietor, having taking the soil pipe of a recently erected water closet into a cess-pool alongside a deep well sunk in the chalk, had rendered his house unlettable to any thinking person.”—*Lancet*, July 23, 1887.

If these analyses and the foregoing facts indicate that the surface or subsoil water of Southampton has become contaminated to such a degree as to render its use unsafe for drinking and domestic purposes, then the water supply which is, as has been stated, the chief or only marked cause of ill-health, must be protected in every possible way ; otherwise, when the town becomes large the following remarks of the Editor of the *Lancet* in reference to Margate, which recently suffered from typhoid fever, will apply to Southampton.

“Nothing but the abolition of cess-pools, the provision of a proper system of drainage and of a safe water supply, will make Margate fit to be regarded as a first-class health resort.”—July 23, 1887.

Fortunately these expensive improvements, which will inevitably come, are not now essential. They cannot be provided and

for years the present methods of drainage and disposal of waste must suffice.

The flatness of Southampton, which is an obstacle to every form of drainage, renders the use of Waring's excellent system almost inapplicable from the fact that the terminal distributing pipes, if provided with the necessary fall, would lie not near the surface where oxidation readily takes place, but far below in sand instead of earth and in dangerous proximity to the water supply. It also makes it impossible to provide drains over fifty feet in length with sufficient fall to the cess-pools to prevent the occurrence of stagnation and leakage.

Possibly pure water might be obtained by using driven wells passing through the surface water to a deeper source, but then safety would not be attained (as is shown by the Dudlow Lane well); and what is worse this would be only dodging the sanitary evils instead of removing them. All the water might be boiled and in this way safety would be attained, but this is only another method of shirking a plain duty. Dr. Geo. M. Sternberg writes: "We may then safely say that the thermal death point of the typhoid bacillus is 56 degrees C., or 132.8 degrees F."

Evidently wisdom lies in striving to remove all sources of the water contamination.

Therefore in closing I would make the following suggestions:

(1.) Decomposing manure heaps should be protected from the rain by simple roofs or else be stored in dry pits, thereby saving valuable fertilizing material and preventing soakage into the surface water.

(2.) When old-fashioned privies are used they should be kept dry and odorless by the use of earth frequently renewed.

(3.) If waste water is allowed to empty on the ground near the house the point of exit should be frequently changed to prevent saturation of the soil.

(4.) All cess-pools without bottoms of cement, and so-called cess-pools, mere holes in the ground with a few large stones thrown in, should be abandoned. All leaky cess-pools and drains should be made water-tight as shown by the smoke test. There is a current belief in the village, said to be founded on observation, that the contents of many cess-pools rise and fall with the tides, implying the existence of leaky cess-pools.

(5.) If the contents are to be emptied as at present on the ground between the houses, the cess-pool should be used for waste

water and fluid excrement only and emptied as often as once a week and always in a fresh spot. "Oxidation, in other words the beneficial cleansing power of earth, does not continue for an indefinite period. Soil is liable to be in time overdone with filth, and is then unable to carry on this purifying action, so that animal matters pass through it unchanged. Its particles require rest and free exposure to the air, before it recovers its expended powers. Earth becomes relieved of the products of this dressing with filth by means of vegetation which greedily incorporates them into its substance."—Fox, p. 50.

Other excremental matter should be deposited in dry earth in boxes or pails and removed daily.

(6.) If the cess-pool is used for all excremental matter, a bad practice, the contents should be carried far away and never emptied on the ground near the cottages and wells.

(7.) For the reception and proper treatment of every form of waste requiring removal a sewage farm should be provided at a distance.

Finally this outbreak of typhoid fever emphatically teaches that the only safe disposal of all organic matter is burial near the surface, where purification by chemical action rapidly takes place.

NEW LONDON COUNTY TEMPORARY HOME FOR CHILDREN.

BY JULIAN LA PIERRE, M.D.

It may be of interest to your board for me to report the sanitary condition for the past year of the New London County Temporary Home for Children, which is located near here in the adjoining town of Preston. The Home has had upon an average twenty inmates, at times more, seldom less.

The history of the majority of these children, previous to the date of their admission to the Home is but little known. During the winter a case of the whooping-cough was imported into the institution, and from that seven others contracted the disease. On the 29th of May, there were twenty-three children in the Home and of this number only two had ever been vaccinated—upon that date I vaccinated the entire lot, as there was a case of small-pox in progression in the vicinity. On the 1st of June being called to the Home, I found seven of the little ones in bed—five with measles and two with scarlet-fever. In the following two weeks ten more of the inmates came down, seven with measles and three with scarlet-fever—making seventeen in all, twelve measles and five scarlet-fever. In addition, one case of measles was followed by scarlet-fever and one of scarlet-fever by measles; in both cases the primary disease was light and the secondary severe. The seventeen primary cases were doubtless contracted outside the institution, the two secondary, perhaps not. Fifteen of the number had sore arms, but I could not see that the vaccinations in any way affected the course of the fevers or eruptions, or on the other hand that the fevers modified the vaccinations.

TREASURER'S REPORT.

The Treasurer begs leave to report that he has received from the Comptroller :

1886.

July.	On account of State Board of Health,	\$1,250.00
Oct.	From Comptroller,	1,250.00

1887.

Jan.	From Comptroller,	1,250.00
April.	From Comptroller,	1,250.00

Making a total receipt,	\$5,000.00
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That there have been expended up to

June 30, 1887, for traveling and

other necessary expenses of mem-

bers while on duty, . . . \$319.67

For additions to the Library, . . . 201.21

For stationery, blank books, blank
certificates, circulars, printing, etc., 1,287.20

For clerical services, . . . 400.00

For office expenses, including furni-
ture, lights and fuel, . . . 194.32

For scientific apparatus, . . . 124.68

For postage, . . . 419.41

For telegrams, express charges, and
messengers, . . . 52.10

For assessment expenses State Board
of Health conference, . . . 5.00

For insurance, . . . 5.25

For legal services, Ward Bailey, . . . 95.00

For scientific investigations, . . . 70.00

For Secretary's salary, . . . 1,800.00

July 1. Balance on hand returned to Treasu- rer,	26.16
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\$5,000.00

Respectfully submitted,

C. A. LINDSLEY, *Treasurer.*

ADDITIONS TO THE LIBRARY.

- American Public Health Association, Report of the Committee on Disinfectants at the 14th Annual Meeting at Toronto, 1886.
- American Public Health Association, Report of the Special Committee on the Disinfection of Rags.
- American Society of Civil Engineers, Report of the Commission of the, by S. M. Gray, C. E.
- American Water Work Association, 6th Annual Report.
- Anatomy, Descriptive and Topographical, by Carl Heitzman, M.D.
- Bacillus of Typhoid Fever, by Geo. M. Sternberg, M.D.
- Blue Hill Meteorological Observatory, An Account of its Foundation and Work, A. Lawrence Rotch, S.B.
- Boston Board of Health, 15th Annual Report of.
- Brooklyn, Annual Report of the Health Department of, 1886.
- Burlington, Vt., Annual Report of the Health Officer.
- California, Annual Meteorological Review of the State for 1886, by Lieut. Glassford.
- Cincinnati, Ohio, 20th Annual Report of the Health Department.
- Circular of Information of the Bureau of Education, No. 2, 1886.
- Cleveland, O., 14th Annual Report of the City Health Department.
- Commissioners of Education, Report of the, 1885-86.
- Coloring of Candies, by Prof. Erastus G. Smith, Ph.D.
- Connecticut, Annual Report State Board of Charities.
- Connecticut, 2d Annual Report of the Bureau of Labor Statistics, year ending Nov. 30, 1886.
- Connecticut Board of Agriculture and Experiment Station, Reports of.
- Connecticut State Board of Charities, Annual Report.
- Cremation of the Dead, Hugo Erichsen, M.D.
- Detroit, Mich., 6th Annual Report Board of Health.
- Education as a Science, Alexander Bain.
- Extrait du Bulletin de l'Académie de Médecine, fait au nom d'une Commission.
- Graves' Clinical Medicine, Vol. II.
- Grosse Isle Quarantine Station, Annual Report of.
- Hartford Board of Health, 2d Annual Report of.
- Hartford, Reports of City Missionary of, 10th Annual, Mrs. V. T. Smith.
- Health of Nations, by Edwin Chadwick, Vols. I and II.
- Health of Our Children, by "Dr. Frank."
- Health at School, by Clement Dukes, M.D.
- Hecker's Epidemics of the Middle Ages.

- Hirsch's Handbook of Geographical and Historical Pathology, Vols. II and III, New Sydenham Society.
- Holyoke, Mass., Annual Report of Inspector of Milk, Vinegar and Petroleum.
- Indiana, 5th Annual Report of the State Board of Health.
- Keokuk, Iowa, Report Board of Health.
- Laws from a Sanitary Standpoint, Article by R. Harvey Reed, M.D., Sec. Ohio State Sanitary Association.
- Lexicon of Medical Terms, by Mr. Power and Dr. Sedgwick, Parts XI and XII.
- Lowell, Mass., City Board of Health, Annual Report.
- Michigan, State Board of Corrections and Charities, 8th Biennial Report.
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State Board of Health.

BUREAU OF VITAL STATISTICS,

STATE OF CONNECTICUT.

REGISTRATION REPORT

FOR THE

YEAR ENDING DECEMBER 31, 1886.

NEW SERIES—No. 9.



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OFFICE OF THE BUREAU OF VITAL STATISTICS,
STATE HOUSE, HARTFORD, NOV. 30, 1887.

To his Excellency, the Governor of the State of Connecticut :

SIR :—In accordance with the laws of this State, I have the honor to submit to you the detailed abstracts of the Births, Marriages, Divorces and Deaths, that were registered in Connecticut in the year 1886, together with a few suggestions and inferences on the main features of the Vital Statistics of that year.

Your very obedient servant,

C. A. LINDSLEY, M.D.,
Superintendent of Registration of Vital Statistics.

REGISTRATION REPORT.

1 8 8 6 .

INTRODUCTION.

THE facts concerning population, the number of marriages, of births and of deaths in a country are so dependent upon each other that they cannot be satisfactorily studied without due regard to their intimate relations, and the bearings which each set of facts have upon each of the other set.

The close connection between the facts above mentioned and many social problems is so direct and important that the knowledge of them is not only extremely interesting, but as aids in the study of social science are indispensable, and valuable in proportion to their accuracy.

I say, in proportion to their accuracy, advisedly, because, no considerable community can attain to exact accuracy, in the enumeration of its vital statistics. Even supposing perfect accuracy to be attainable at a given moment, the next moment the arrival or departure of citizens, the births, marriages, divorces and deaths have destroyed the exact accuracy and changed the figures. But a satisfactory accuracy still remains, which being given at regular intervals of time, enables the comparison of one set of facts with the others and exhibits in many ways the social condition of the people as regards their morality, their health and their prosperity.

MARRIAGE.

Marriage as a civil and religious institution is recognized as the proper and legitimate way in which the population is primarily regulated. It is theoretically the true adjuster of the number of the people, and what is of supreme importance it is the most successful guardian of the young with which the experience of mankind is acquainted. As the protector, trainer and educator of future generations, no other influence is known which can at all compare in beneficent results with those which proceed from the institution of marriage. The proportion of those of marriageable age in a community who are living in the conjugal condition, and the fidelity with which the marriage vows are observed are true indications of the status of that community and of its influence upon the next generation. If in a nation, bachelors and spinsters are numerous in middle life and later, if divorces are frequent and illegitimate children common, it can be safely predicted that the general sum of happiness in that nation is less than under opposite conditions, and that the succeeding generations of two peoples so diversely living will show still stronger contrasts by comparison.

The eminent English statistician, Dr. Wm. Farr, said that the "Marriage-rates directly afford a trustworthy test of our national well-being." He called them "a barometer of national prosperity; and indirectly the Marriage Register supplies the most reliable measure of the progress of Elementary Education."

BIRTHS.

Birth statistics are valuable chiefly as giving information in regard to the increase of the population and the distribution of the sexes, the fecundity of parents at varying ages, and the social status of the new born with relation to those circumstances in life which divide the human family into grades and ranks of more or less marked distinctions. The results of early as compared with late marriages, the influence of occupations, of social habits, of heredity and of other conditions upon the birth-rate, are all of great value in investigating and studying the problems of social economy. And they become of vastly more importance when studied in connection with the like statistics relating to population, marriages and deaths.

DEATHS.

The registration of deaths and the causes of death, together with such facts concerning the decedents, as relate to the age, occupation, social relations, nativity, place of death, etc., are universally admitted to be of highest value of any branch of vital statistics. But so interdependent are all the branches of vital statistics upon each other, that the value and importance of the facts in either are greatly enhanced by the study of their mutual relations.

The registration of deaths, with the accompanying circumstances usually recorded, have long been regarded as the most trustworthy guide for the sanitarian and public hygienist, in investigating those influences which are most destructive to human life. It affords the most reliable indication of the state of the public health; and as it is an accepted truism that health is wealth, of public prosperity.

The death of an individual at a given age from a special cause, is a matter of trivial importance as it concerns the public. The decedent is only a unit among many thousand other units. But the death of many persons from the same cause becomes at once a matter of intense public interest and concern. The more prompt and complete the information concerning such an event as many deaths from the same cause, the sooner can the circumstances be investigated, and the means of obviating further loss of human life discovered and applied. Not only then is the registration of deaths important for the study of the statistician at his leisure, and after such registration has accumulated the records of years, but it is often of more immediate importance to the present uses, that such registration shall be promptly made, that the information which it gives may be acted upon for the safety of the public at the present time.

A fatal epidemic may prevail in a large community and gain a strong hold among them before much is known of its general prevalence. But if every fatal result from it is immediately put on record, the knowledge is at once available to those whose business it is to take official and authoritative action to control such an epidemic for the protection of the public health.

This is only one of the many ways in which the registration of deaths is a thing of practical and immediate utility to the living.

About fifty years ago Edwin Chadwick, the late eminent English sanitarian, pointed out what should be the objects to be attained in the registration of Vital Statistics. These objects he said, were :*

(a) "The registration of the causes of disease, with a view to devising remedies or means of prevention.

(b) "The determination of the salubrity of places in different situations; with a view to individual settlements and public establishments.

(c) "The determination of comparative degrees of salubrity, as between occupation itself and occupation in places differently circumstanced, in order that persons willing to engage in insalubrious occupations may be the more effectually enabled to obtain adequate provision for their loss of health.

(d) "The collection of data for calculating the rate of mortality, and giving safety to the immense mass of property insured, so as to enable everyone to employ his money to the best advantage for his own behalf, or for the benefit of persons dear to him; and that without the impression of loss to anyone else.

(e) "The obtainment of means of ascertaining the progress of population at different periods, and under differing circumstances.

(f) "The direction of the mind of the Government and of the people to the extent and effects of calamities and casualties; the prevention of undue interments; concealed murder; and deaths from culpable heedlessness or negligence."

While it is to be so much regretted that the methods and practice of registration in Connecticut fall far short of accomplishing several of the objects above mentioned, these defects do not in the least invalidate the great value of registration, or afford the smallest argument why a more perfect registration of vital facts would not be among the most successful means known of accomplishing those objects, the importance of which cannot for a moment be questioned.

GENERAL SUMMARY.

The total number of births registered in Connecticut during the year 1886 was 15,934, of marriages 5,497, and of deaths 11,616.

* The Health of Nations, a review of the works of Edwin Chadwick.

Increase of Population.—The births and deaths registered in the year numbered respectively 15,934 and 11,616, so that the natural increment or excess of births over deaths was 4,318. This is a marked difference as compared with the previous year, when the natural increment was only 3,463, an advantage in favor of 1886 of 855.

The average natural increment for the ten years previous was 3,902.2 per year, by the excess of births over deaths.

But for the decade preceding that, the average increment per year was 4,506.8.

The largest natural increment of population during the past twenty years was in 1874, and equalled 5,511; the smallest was in 1882, and equalled 3,316.

These varying differences however are not to be taken as exact statements of the true differences in the number born and the number dying in their respective years. The birth records are without question more defective than the registration of deaths.

So much also depends upon the vigilance and special personal effort of the Registrar in every town to secure full registration that the records will vary a good deal from year to year in different towns according as such effort and vigilance is exerted or not. In many towns of the State there is good evidence of full registration, while in others the Registrars have made little or no effort to complete the records and only an imperfect registration has resulted.

There has been small reason however to criticise the results of the registration of vital statistics in Connecticut, in view of the general neglect of the existing laws concerning registration by almost all parties who were concerned in their execution. This was particularly the fact in a large number of the small towns of the State. The doctors as a rule ignored the law requiring monthly returns to the Registrars, and instead made annual returns of such cases as they could remember at the end of the year, and with such accuracy of facts in regard to the items required by law as an average memory would retain and the memoranda on their account books supply. The Registrars for the most part made no effort to secure obedience to the laws, but readily became a party to their violation. The Selectmen of towns also abetted these misdemeanors by paying for the illegal and imperfect returns of certificates, the same as if the returns had been legally and fully made.

The doings of the last Legislature amending the registration laws in regard to certificates of death, cannot fail to ensure more perfect records of that event, and will doubtless exert an indirectly favorable influence upon the registration of births and marriages also.

The amended law forbids the burial or removal of the body of any deceased person without a permit from the Registrar of the town in which the person died. The Registrar must give the permit on receipt of the certificate required by law.

The law is further guarded in requiring Registrars to make a monthly report to the State Board of Health of the mortality in their respective towns. This law has been in operation since the first of June, and in most places is working very satisfactorily.

Estimated Population.—The last official census of the State was taken in 1880 and gave a population of 622,700. A few months ago the Secretary obtained from the Town Clerk of every town in the State an estimated population for each town for the year 1886. The total of those estimates was 715,329, being an increase in six years of 92,629. As the registered natural increment in the aggregate is not one-fourth of that number, it is quite obvious that immigration is much the larger mode of increase.

An examination of the estimates of the various towns shows also that the increase is very largely among the towns of the largest population, and the rate of increase seems to be not simply in proportion to the population but is more especially influenced by the extent of manufacturing pursuits. In the towns of smallest population and particularly those which are almost wholly agricultural, the inhabitants have decreased rather than increased, and a natural increment has been wholly wanting; on the other hand the number of registered deaths has exceeded the number of births.

There are 47 towns in the state in which from the records it appears the deaths were more than the births. Of these 6 were in Hartford Co., 6 in New Haven Co., 3 in New London Co., 8 in Fairfield, 7 in Windham, 9 in Litchfield, 6 in Middlesex, and 2 in Tolland. There were 11 other towns in which the number of births and deaths registered were equal; of which 1 was in New Haven Co., 3 in New London, 2 in Fairfield, 3 in Litchfield and 2 in Tolland Co., making a total of 58 towns of the 167 in the state in which the records show no natural increase of the population, but in 47 of which there was a natural loss. The

loss in these 47 towns by the excess of deaths over births amounted in the aggregate to 265. Hence the gain of 4,318 by natural increment occurred wholly in 109 of the towns of the State.

There were by the estimated population, viz : 715,329 :—

22.27 births to the 1,000.

7.68 marriages to the 1,000.

16.23 deaths to the 1,000.

6.04 excess of births over deaths.

The daily average of the movement of the population was:—

Daily average of births—male,	22.4	;	female	20.8	;	total,	43.7
“ “ marriages,	-	-	-	-	-	-	15.0
“ “ deaths,	-	-	-	-	-	-	31.8
“ “ natural increment,	-	-	-	-	-	-	11.8

There were more births in 1886 than in the previous year, but not more than the increased population would demand; in fact the birth rate per 1000 was slightly less than in the year before being 22.2 as against 22.66. The total mortality was less than in the previous year notwithstanding the increase of population, so that the death rate was markedly better than in the year before, being 16.23 as against 17.60. These differences in total were not the result of any considerable changes in special localities in the State, but the differences were pretty generally distributed throughout the commonwealth. The birth rate does not differ materially in any of the counties in the two years. It was slightly less in all the counties in 1886 than in 1885. The same was almost exactly true of the death rate in the counties, having been less in all the counties, except that of Windham, in which it was slightly higher, in 1886.

It has been long recognized that the proportion between deaths and population of all ages affords a convenient measure of the varying health of a given community. Hence the just inference that as between 1886 and the year before, 1886 was in a moderate degree a period of better health throughout the State.

The following table gives a summary of the vital statistics of the State from 1848, the date of the first registration report, up to the present time:

TABLE I.
VITAL STATISTICS FROM 1848 TO 1887.

Years.	Births.	Birth- rate per 1,000.	Mar- riages.	Deaths.	Death- rate per 1,000.	Excess of Births over Deaths.	Divorces.	No. of Marriages to each Divorce.
1848	6,850	20	2,816	4,379	12.4	2,471	---	----
1849	7,238	20	2,920	5,049	14	2,189	---	----
1850	7,578	20.4	2,884	5,170	14	2,408	---	----
1851	8,362	22	2,995	4,767	13	3,595	---	----
1852	8,302	21.4	3,136	5,596	14.4	2,706	---	----
1853	8,439	21.3	3,202	5,646	14.2	2,793	---	----
1854	10,012	24	4,286	6,094	14.6	3,918	---	----
1856	11,139	25	4,089	6,324	14.9	4,815	---	----
1857	11,355	26	3,747	6,585	16	4,770	---	----
1858	11,299	25	3,737	6,618	15.6	4,681	---	----
1859	11,259	25	3,778	6,533	15	4,726	---	----
1860	11,873	26	4,036	7,602	16.3	4,271	310	13
1861	11,934	25	3,757	7,735	16.5	4,199	275	13.9
1862	10,803	23	3,701	8,541	18	2,262	257	14
1863	9,885	21	3,467	8,442	18	1,443	291	12
1864	9,734	20	4,107	9,109	19	625	426	9.6
1865	10,202	20.8	4,460	7,950	16	2,252	404	11
1866	11,623	23	4,978	7,520	15	4,103	488	10
1867	12,029	23.2	4,779	7,343	14.3	4,686	459	10.4
1868	12,469	23.4	4,734	7,549	15	4,920	478	9.9
1869	12,481	23.5	4,754	8,417	15.6	4,064	491	9.6
1870	13,136	24.2	4,871	8,895	15	4,241	408	11.9
1871	13,114	24	4,882	8,166	14.2	4,948	409	11.9
1872	13,805	25.3	5,023	9,970	18	3,835	464	10.8
1873	14,087	25.6	4,841	9,822	17.4	4,265	457	10.6
1874	14,450	26.2	4,694	8,939	17.2	5,511	492	9.5
1875	14,328	26	4,385	9,833	17	4,495	476	9.4
1876	13,800	25	4,320	10,187	17.5	3,613	396	10.9
1877	14,072	26	4,319	9,696	16	4,376	427	10.1
1878	13,499	24	4,315	9,352	15	4,147	401	10.7
1879	14,051	22.4	4,373	9,394	15	4,657	316	13.7
1880	13,829	22.2	4,745	10,408	16.7	3,421	332	14.2
1881	14,616	22.4	4,850	10,907	17.4	3,709	404	12
1882	14,938	23.9	5,329	11,622	18.7	3,316	392	13.5
1883	15,856	25.4	5,440	11,943	19.1	3,913	433	12.6
1884	15,758	23	5,394	11,351	16.6	4,407	360	14.7
1885	15,496	22.7	5,091	12,033	17.6	3,463	383	13.3
1886	15,934	22.2	5,497	11,616	16.2	4,318	387	14.2

TABLE II—HARTFORD COUNTY.
BIRTHS, MARRIAGES AND DEATHS IN THE SEVERAL TOWNS FOR THE YEAR ENDING DEC. 31, 1886.

TOWNS.	BIRTHS.				MARRIAGES.				DEATHS.																		
	SEX.		PARENTAGE.		NATIVITY.				SEX.		NATIVITY.																
	Male.	Female.	Total.	Birth-rate per 1,000.	Both Amer.	Both Foreign.	Amer. Mother.	Amer. Father.	Both For. or Diff. Nations.	Not stated.	Both Amer.	Both Foreign.	Wife Amer.	Wife Foreign.	Not stated.	Total.	Female.	Not stated.	Male.	Female.	Not stated.	Total.	American.	Foreign.	Not stated.	Death-rate per 1,000.	
Hartford	50,000	647	638	10	1295	25.9	558	486	122	91	38	---	---	---	526	71	32	495	432	---	977	722	255	---	---	---	19.5
Avon	1,075	4	6	1	11	10.2	7	3	1	---	---	---	---	---	5	---	---	3	3	---	6	6	---	---	---	---	55.8
Berlin	2,500	25	23	---	48	15.2	29	12	5	2	---	---	---	---	17	---	---	19	22	---	41	32	9	---	---	---	16.4
Bloomfield	1,350	18	9	---	27	20.	16	7	2	---	---	---	---	---	10	5	---	8	10	---	20	18	2	---	---	---	14.8
Bristol	6,500	62	73	3	138	21.2	71	40	10	10	7	---	---	---	32	10	---	35	37	---	72	59	13	---	---	---	11.
Burlington	1,200	17	12	---	29	24.1	16	7	3	---	3	---	---	---	3	1	---	11	4	---	15	10	5	---	---	---	12.5
Canton	2,300	36	28	1	65	28.2	30	22	8	5	---	---	---	---	10	7	---	20	26	---	46	39	7	---	---	---	20.
East Granby	754	2	7	---	9	11.7	8	1	---	---	---	---	---	---	2	---	---	3	13	---	15	20	1	---	---	---	27.8
East Hartford	4,000	36	46	---	82	20.5	46	19	10	7	---	---	---	---	15	3	---	35	38	---	73	58	15	---	---	---	18.2
East Windsor	3,100	34	33	---	67	21.6	27	19	7	9	5	---	---	---	6	5	---	26	25	---	51	40	10	---	---	---	16.4
Enfield	7,000	70	86	3	159	22.7	54	61	16	19	9	---	---	---	36	27	12	79	65	---	144	116	28	---	---	---	20.5
Farmington	3,410	25	30	---	55	16.1	29	13	5	4	---	---	---	---	15	4	---	20	19	---	40	29	11	---	---	---	11.
Glastonbury	3,800	30	41	1	72	18.9	49	13	5	5	---	---	---	---	16	1	---	23	26	---	49	43	6	---	---	---	12.8
Granby	1,500	10	5	---	15	10.	13	2	---	---	---	---	---	---	3	---	---	8	7	---	7	17	---	---	---	---	11.3
Hartland	600	6	1	---	7	11.6	6	---	---	1	---	---	---	---	3	1	---	6	2	---	8	7	1	---	---	---	13.3
Hartford	7,200	77	74	---	151	20.9	45	76	11	8	11	---	---	---	15	30	5	68	78	2	148	93	40	15	---	---	20.5
Manchester	400	1	4	---	5	12.5	3	1	---	1	---	---	---	---	---	---	---	1	3	---	4	---	---	---	---	---	10.
Marlborough	18,000	280	241	7	528	29.3	135	151	78	41	12	111	---	---	58	62	13	107	139	2	308	221	81	6	---	---	17.1
New Britain	950	3	18	1	22	24.2	15	4	2	1	---	---	---	---	2	---	---	10	9	---	19	16	3	---	---	---	20.
Plainville	2,300	13	17	---	30	13.	18	9	---	3	---	---	---	---	14	2	2	12	11	---	23	19	4	---	---	---	10.
Rocky Hill	1,108	5	5	---	10	9.0	8	1	---	---	---	---	---	---	5	2	---	12	6	---	16	12	4	---	---	---	14.5
Simsbury	1,800	24	22	2	48	26.6	28	8	6	3	2	1	---	---	2	9	1	18	16	---	34	26	5	---	---	---	18.8
Southampton	5,500	54	75	2	131	23.8	79	29	9	11	3	---	---	---	25	5	4	4	26	3	70	53	17	---	---	---	12.7
South Windsor	1,850	19	14	2	35	18.9	23	6	2	3	1	---	---	---	5	---	---	15	12	---	28	28	2	---	---	---	15.1
Suffield	3,225	25	28	---	53	16.4	34	7	3	5	4	---	---	---	16	3	1	15	15	---	30	28	2	---	---	---	9.3
West Hartford	1,875	15	11	---	26	12.8	15	3	1	4	3	---	---	---	7	---	---	10	17	---	27	22	5	---	---	---	14.4
Wethersfield	2,200	15	16	---	31	14.	21	4	4	1	1	---	---	---	15	1	---	37	13	---	50	47	3	---	---	---	22.7
Windsor	3,058	34	26	1	61	19.9	32	13	7	7	2	---	---	---	12	2	2	22	23	---	45	32	11	2	---	---	11.4
Windsor Locks	2,600	36	26	1	63	28.	24	19	13	6	1	---	---	---	12	7	---	16	11	---	27	17	10	---	---	---	10.3
Total	141,145	1623	1615	35	3273	23.1	1439	1036	330	247	107	114	---	---	640	321	106	115	---	---	182	128	50	---	---	---	17.

TABLE II.—NEW HAVEN COUNTY.

TOWNS.	Estimated Population.	BIRTHS.					MARRIAGES.							DEATHS.											
		SEX.		Birth-rate per 1,000.	PARENTAGE.			NATIVITY.				SEX.		NATIVITY.		Death-rate per 1,000.									
		Male.	Female.		Total.	Both Amer.	Both Foreign.	Am. Mother.	For. Mother.	Both For. of diff. Nations.	Not stated.	Total.	Husband non-resident.	Both non-resident.	Male.		Female.	Not stated.	Total.	American.	Foreign.	Not stated.			
New Haven	80,000	1,120	1,020	1,214	26.7	749	677	1,96	143	73	303	382	245	56	82	49	17	752	726	2	1,480	1,092	373	15	18.5
Beacon Falls	450	12	14	26	57.7	6	10	3	2	5	---	2	1	1	---	5	---	8	4	---	12	7	5	---	26.6
Bethany	640	5	5	10	15.6	9	---	---	---	---	---	2	1	---	3	---	3	4	2	---	6	5	1	---	93.5
Branford	3,400	45	42	87	25.5	40	22	15	10	---	---	17	3	1	---	21	1	32	17	---	49	39	10	---	14.4
Cheshire	2,200	18	12	30	13.6	19	4	4	2	1	---	15	---	2	---	17	5	15	13	---	28	20	8	---	12.7
Dorby	15,500	284	206	495	31.8	174	208	48	34	31	---	59	45	9	21	134	9	147	120	---	267	184	83	---	17.2
East Haven	800	4	9	13	16.2	8	1	---	3	1	---	3	---	1	---	4	---	11	5	---	16	14	2	---	20.
Guilford	2,800	26	26	52	18.5	35	9	2	6	---	---	19	1	---	1	21	1	26	21	---	47	42	5	---	16.7
Hamden	3,650	26	36	62	16.9	33	15	9	3	2	---	14	4	---	1	19	---	21	16	---	37	33	4	---	10.1
Madison	1,650	11	13	24	14.5	22	2	---	---	---	---	13	---	1	1	15	2	14	10	---	24	21	2	---	14.5
Meriden	22,000	284	282	568	21.2	186	274	48	39	21	---	74	55	11	14	154	5	185	188	---	373	259	102	12	16.9
Middlebury	687	6	4	10	14.5	8	---	1	1	---	---	---	---	---	---	---	---	4	4	---	8	7	1	---	13.1
Milford	3,500	33	25	58	16.8	46	10	1	---	2	---	29	3	2	---	34	2	27	24	---	51	45	6	---	14.5
Naugatuck	6,000	94	64	159	26.4	56	60	26	11	6	---	25	14	6	4	49	---	53	46	---	99	66	33	---	16.5
No. Branford	950	8	14	22	23.1	19	2	---	1	---	---	5	1	---	6	---	---	11	14	---	25	21	4	---	26.3
North Haven	1,775	13	14	27	15.2	20	5	---	1	---	---	7	1	---	8	1	---	16	17	---	33	29	4	---	18.5
Orange	3,800	24	24	50	13.4	31	12	3	1	3	---	12	1	---	2	15	2	31	35	---	66	54	12	---	17.8
Oxford	1,200	9	4	13	10.8	10	2	---	1	---	---	2	---	---	3	2	---	11	10	---	21	20	1	---	17.5
Prospect	500	3	5	8	16.	7	---	---	1	---	---	3	---	---	---	3	---	5	2	---	7	6	1	---	14.
Seymour	2,900	41	15	56	18.6	24	18	8	2	4	---	2	7	---	9	---	---	20	17	---	37	32	5	---	20.3
Southbury	1,800	11	11	22	12.2	17	2	2	---	---	---	3	2	---	5	---	---	12	3	---	15	13	2	---	83.3
Wallingford	5,500	76	64	140	25.4	73	32	19	13	3	---	26	4	2	3	35	1	44	34	---	78	55	19	4	14.1
Waterbury	30,000	469	374	848	28.2	308	349	101	58	27	5	144	91	21	25	281	10	285	244	---	529	371	158	---	18.6
Wolcott	513	2	7	9	17.5	5	2	1	1	---	---	2	---	1	2	5	---	2	8	---	10	9	1	---	19.5
Woodbridge	825	7	8	15	18.1	12	1	1	---	1	---	---	---	---	---	---	---	6	7	---	13	13	---	---	15.7
Total	193,040	2,631	2,298	17,496	25.6	1917	1717	488	334	180	310	860	479	112	159	1,610	98	1742	1587	2	9,331	2457	842	32	17.2

TABLE II.—NEW LONDON COUNTY.

TOWNS.	Estimated Population.	BIRTHS.					MARRIAGES.						DEATHS.												
		SEX.		Birth-rate per 1,000.	PARENTAGE.			NATIVITY.						SEX.		NATIVITY.									
		Male.	Female.		Total.	Both Amer.	Both Foreign.	Am. Mother.	Am. Father.	Both For. of diff. Nations.	Not stated.	Both non-resident.	Husband non-resident.	Total.	Male.	Female.	Not stated.	American.	Foreign.	Not stated.					
New London	13,000	146	121	267	20.4	147	73	23	21	3	---	72	28	5	13	118	14	5	102	107	209	174	35	---	16
Bozrah	1,150	10	11	21	18.2	8	8	2	2	1	---	3	3	---	---	6	---	---	2	5	7	7	---	---	60.8
Colchester	2,850	29	24	53	15.7	30	13	6	4	---	---	15	3	1	1	20	1	---	21	26	47	33	7	7	16.3
East Lyme	1,731	20	17	41	23.8	26	15	---	---	---	---	21	1	1	1	24	1	1	10	10	21	18	3	---	12
Franklin	600	4	2	6	10.	3	---	---	---	---	---	---	---	1	---	---	---	---	4	6	10	6	4	---	16.6
Griswold	3,000	37	38	79	26.3	30	35	6	4	4	---	13	4	6	2	25	1	---	27	25	53	45	8	---	17.6
Groton	5,150	34	50	84	16.3	66	3	7	6	2	---	34	1	2	3	40	5	1	37	28	65	57	8	---	12.6
Lebanon	1,750	10	17	27	14.2	22	2	2	1	---	---	7	---	1	---	8	1	---	16	11	27	23	1	3	15.4
Ledyard	1,050	6	15	21	20.	19	---	---	---	---	---	7	---	1	2	10	---	---	13	7	20	19	1	---	19.
Lisbon	500	7	3	10	20.	9	1	---	---	---	---	---	---	---	---	1	---	---	2	4	6	5	1	---	12.
Lyme	1,000	5	5	10	10.	10	---	---	---	---	---	3	---	---	---	3	---	---	7	1	8	8	---	---	80.
Montville	2,700	26	34	60	22.2	46	10	2	2	---	---	18	5	1	1	25	1	1	18	30	48	43	5	---	17.4
Norwich	25,000	277	276	553	22.1	208	253	56	23	12	1	129	44	13	24	210	25	2	213	240	453	338	114	1	18.
No. Stonington	1,775	11	18	29	16.3	29	---	---	---	---	---	13	---	---	---	13	---	---	18	16	34	34	---	---	19.1
Old Lyme	1,400	11	12	23	26	18.5	24	---	---	---	---	5	---	2	---	7	---	---	15	11	26	23	1	2	18.5
Preston	2,600	23	25	49	18.8	40	1	1	1	6	---	14	1	1	3	19	1	---	28	22	50	43	4	3	19.2
Salem	550	4	5	9	16.3	8	---	---	---	---	---	6	---	---	---	6	1	---	4	5	9	8	1	---	16.3
Sprague	3,300	40	29	69	20.9	7	46	7	6	3	---	1	16	---	---	18	---	---	26	28	54	33	21	---	16.5
Stonington	7,500	45	62	107	12.9	73	20	4	6	4	---	30	6	2	5	43	10	2	43	41	84	68	16	---	11.2
Voluntown	1,250	16	17	34	27.2	19	13	---	2	---	---	9	1	1	1	12	3	1	3	9	1	13	13	---	14.
Waterford	3,000	24	23	49	16.3	27	13	3	2	4	---	11	1	---	---	12	---	---	14	21	35	28	5	2	11.6
Total	80,856	785	804	1589	19.8	851	506	119	87	40	1	411	115	37	57	621	64	13	623	653	3,127	1026	235	18	15.8

TABLE II.—FAIRFIELD COUNTY.

TOWNS.	Estimated Population.	BIRTHS.					MARRIAGES.										DEATHS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		SEX.		PARENTAGE.			NATIVITY.					SEX.		NATIVITY.		Death-rate per 1,000.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		Male.	Female.	Total.	Birth-rate per 1,000.	Both Amer.	Both Foreign.	Am. Mother.	For. Mother.	Both For. of diff. Nations.	SEX.						NATIVITY.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
											Male.	Female.	Total.	Not stated.	Both Amer.		Both Foreign.	Husb. Amer.	Wife Amer.	Husb. Foreign.	Wife Amer.	Total.	Husband non-resident.	Both non-resident.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

TABLE II.—WINDHAM COUNTY.

TOWNS.	Estimated Population.	BIRTHS.				MARRIAGES.								DEATHS.															
		SEX.		Birth-rate per 1,000.	PARENTAGE.				NATIVITY.				SEX.		NATIVITY.		Death-rate per 1,000.												
		Male.	Female.		Total.	Both Amer.	Both Foreign.	Am. Mother.	For. Father.	Am. Father.	Both For. of diff. Nations.	Not stated.	Both Amer.	Both Foreign.	Wife Amer.	Husb. Foreign.		Wife Amer.	Not stated.	Total.	Husband non-resident.	Both non-resident.	Male.	Female.	Not stated.	American.	Foreign.	Not stated.	
Brooklyn.....	2,400	28	28	56	23.3	22	28	4	1	1	1	1	10	1	1	1	1	13	3	---	---	19	14	---	25	8	---	13.7	
Ashford.....	950	5	4	9	95.7	9	---	---	---	---	---	---	5	---	---	---	---	5	5	---	---	6	7	---	12	1	---	13.6	
Canterbury.....	1,200	5	12	17	14.1	14	3	---	---	---	---	---	5	---	1	---	---	6	---	---	---	7	14	---	20	1	---	17.5	
Chaplin.....	600	3	3	6	10.	5	---	1	---	---	---	---	2	---	---	---	---	2	2	---	---	6	3	---	9	9	---	15.	
Eastford.....	800	5	7	12	15.	12	---	---	---	---	---	---	6	---	---	---	---	6	6	---	---	7	10	---	16	1	---	21.2	
Hampton.....	850	4	4	8	94.1	6	1	---	1	---	---	---	3	1	---	---	---	4	4	---	---	4	3	---	7	5	2	80.	
Killingly.....	7,000	94	88	182	26.	79	72	8	18	5	---	---	22	34	3	4	2	65	4	3	---	77	74	---	151	29	---	21.5	
Plainfield.....	4,500	36	37	73	15.2	28	35	3	7	---	---	---	24	7	---	---	---	38	7	4	---	20	29	---	49	44	5	10.8	
Pomfret.....	1,470	16	9	25	17.1	17	4	1	1	2	---	---	5	---	---	---	---	5	1	---	---	16	19	---	35	30	5	23.8	
Putnam.....	6,800	94	90	188	27.3	48	99	17	24	---	---	---	36	17	7	8	---	68	8	6	---	57	62	3	122	89	28	17.9	
Scotland.....	580	2	4	6	10.3	6	---	---	---	---	---	---	5	---	---	---	---	5	5	---	---	5	7	---	12	12	---	20.6	
Sterling.....	950	7	6	13	13.6	9	2	1	---	1	---	---	5	---	---	---	---	5	1	1	---	6	8	---	14	12	1	14.7	
Thompson.....	4,600	64	51	115	25.	24	74	6	7	2	2	---	12	27	4	4	---	47	7	2	---	48	37	---	66	17	2	18.4	
Windham.....	10,000	107	111	223	22.3	87	104	14	13	4	1	---	63	12	6	6	---	87	12	2	---	62	83	2	147	93	22	32	14.7
Woodstock.....	3,000	13	11	24	80.	22	1	---	1	---	---	---	10	---	1	---	---	11	1	1	---	10	10	---	20	17	3	66.6	
Total.....	45,700	483	465	957	20.9	388	423	55	73	15	3	2	321	99	30	23	2	367	45	19	---	350	380	5	735	572	123	40	16.

TABLE II.—LITCHFIELD COUNTY.

TOWNS.	BIRTHS.				MARRIAGES.								DEATHS.															
	SEX.		Birth rate per 1,000.	PARENTAGE.				NATIVITY.				SEX.		Total.	Death-rate per 1,000.													
	Male.	Female.		Both Amer.	Both Foreign.	Am. Mother. For. Father.	Am. Father. For. Mother.	Both For. of diff. Nations.	Not stated.	NATIVITY.																		
										Both Amer.	Both Foreign.	Husb. Amer. Wife Foreign.	Husb. Foreign. Wife Amer.	Not stated.		Total.	Husband non-resident.	Both non-resident.										
Litchfield.....	37	27	--	64	17.7	44	12	5	3	--	--	22	6	2	1	--	31	1	--	22	22	44	34	6	4	12.2		
Barkhamsted.....	1,300	8	4	--	12	92.3	10	2	--	--	--	3	--	--	--	--	3	1	--	7	6	13	13	--	--	10.		
Bethlehem.....	650	5	3	--	8	12.3	5	1	1	--	--	3	--	--	--	--	3	1	--	10	6	16	15	1	--	24.6		
Bridgewater.....	650	5	6	--	11	16.9	11	--	--	--	--	1	--	--	--	--	1	--	--	8	5	13	11	2	--	20.		
Canaan.....	1,150	7	9	--	16	13.9	12	2	2	--	--	3	--	1	--	--	4	4	--	4	7	11	9	2	--	95.5		
Colebrook.....	1,200	9	4	--	13	10.9	7	4	1	1	--	5	--	--	--	--	5	1	1	6	4	13	1	--	--	11.6		
Cornwall.....	1,500	8	5	--	13	8.6	13	--	--	--	--	--	--	--	--	--	--	--	--	9	12	24	22	2	--	16.		
Goshen.....	1,100	10	9	--	19	17.2	13	2	2	2	--	6	1	--	--	--	7	--	--	4	10	14	12	2	--	12.7		
Harwinton.....	950	7	11	--	18	18.9	11	2	2	1	--	7	1	1	--	--	10	--	--	9	9	15	13	2	--	15.7		
Kent.....	1,650	12	6	--	18	10.9	16	1	1	--	--	12	--	--	--	--	12	3	--	7	9	16	16	--	--	96.3		
Morris.....	600	7	4	--	11	18.3	9	2	--	--	--	3	--	--	--	--	3	--	--	2	2	4	4	--	--	--	66.6	
New Hartford.....	3,300	42	22	3	67	20.3	20	31	9	3	2	2	8	15	4	--	27	--	--	19	14	33	23	8	2	--	10.	
New Milford.....	4,500	30	35	--	65	14.4	43	7	3	6	3	3	31	6	4	3	44	--	--	32	33	65	42	7	16	14	14.4	
Norfolk.....	1,500	2	6	--	8	53.3	3	2	2	1	--	5	--	--	--	--	6	1	--	15	11	26	16	10	--	--	17.3	
North Canaan.....	1,550	22	11	--	33	21.2	24	5	2	2	--	9	1	--	--	--	10	2	1	11	11	22	19	3	--	--	14.1	
Plymouth.....	2,350	19	16	--	35	14.8	21	9	4	1	--	10	2	--	--	--	12	1	--	22	13	35	30	5	--	--	14.8	
Roxbury.....	900	5	8	--	13	14.4	9	3	1	--	--	1	--	1	--	--	3	--	--	8	8	16	16	--	--	--	17.7	
Salisbury.....	3,700	52	28	--	80	21.6	49	21	7	3	--	12	2	--	--	--	16	2	--	23	13	36	29	7	--	--	97.3	
Sharon.....	2,580	22	12	--	34	13.4	28	2	2	1	1	13	--	1	--	--	14	4	2	18	15	33	32	1	--	--	12.7	
Thomaston.....	3,500	54	40	--	94	26.8	41	35	13	5	--	14	5	2	--	--	21	--	--	10	12	22	15	5	2	--	62.8	
Torrington.....	4,500	51	40	--	91	20.2	47	28	9	5	2	21	6	3	1	--	31	--	--	16	18	34	30	4	--	--	75.5	
Warren.....	650	2	5	--	7	10.7	6	1	--	--	--	--	--	--	--	--	--	--	--	4	3	7	6	1	--	--	10.7	
Washington.....	1,600	14	25	--	39	24.3	27	10	--	--	2	12	4	1	3	--	20	3	--	10	11	21	21	--	--	--	13.1	
Watertown.....	1,897	15	13	--	28	14.7	20	3	2	1	1	6	4	--	--	--	14	1	--	11	19	30	27	3	--	--	15.8	
Winchester.....	5,650	56	61	1	118	20.7	74	25	10	5	2	24	6	--	5	--	35	1	--	33	37	70	56	14	--	--	12.3	
Woodbury.....	2,250	16	8	--	24	10.6	17	5	2	--	--	12	--	2	1	--	15	--	--	10	16	26	25	1	--	--	11.5	
Total.....	54,777	517	418	4	939	17.1	580	215	76	45	13	10	243	59	20	25	347	21	4	330	330	660	549	87	24	--	--	12.0

TABLE II—MIDDLESEX COUNTY.

TOWNS.	Estimated Population	BIRTHS.				MARRIAGES.								DEATHS.														
		SEX.		Birth-rate per 1,000.	PARENTAGE.				NATIVITY.				SEX.		NATIVITY.		Death-rate per 1,000.											
		Male.	Female.		Total.	Both Amer.	Both Foreign.	Am. Mother.	Am. Father.	Both For. of diff. Nations.	Not stated.	Both Amer.	Husb. Amer.	Wife Amer.	Husb. Foreign.	Wife Foreign.		Total.	Female.	Male.	Not stated.	American.	Foreign.	Not stated.				
Middletown	12,000	123	124	247	20.5	141	55	24	17	10	---	65	22	6	6	---	99	15	2	133	149	2	284	199	82	3	23.6	
Haddam	2,400	25	27	52	21.6	35	12	1	3	1	---	10	2	1	---	---	13	---	---	15	12	---	27	23	2	2	11.2	
Chatham	1,967	15	17	32	16.2	21	4	3	4	---	---	7	1	1	---	---	9	1	---	11	15	---	26	25	1	---	13.2	
Chester	1,100	18	10	28	25.4	19	2	5	2	---	---	5	4	---	---	---	9	1	---	4	8	---	12	11	1	---	10.9	
Clinton	1,412	13	6	19	13.4	16	1	1	---	1	---	2	---	---	---	---	2	---	---	19	10	---	29	27	2	---	20.4	
Cromwell	1,700	13	10	23	13.5	8	8	1	5	1	---	5	1	2	1	---	9	9	---	12	23	1	36	29	5	2	21.1	
Durham	975	11	4	15	15.3	7	7	1	---	---	---	4	---	1	1	---	6	---	---	10	14	---	24	23	1	---	24.7	
East Haddam	3,150	23	28	51	16.1	41	4	2	3	1	---	16	3	1	1	---	21	2	---	16	16	---	32	29	3	---	10.1	
Essex	2,000	17	14	31	15.5	23	4	1	2	1	---	14	---	1	1	---	16	---	---	10	3	---	13	13	---	---	65.0	
Killingworth	700	4	2	6	85.6	6	---	---	---	---	---	2	1	---	---	---	3	---	---	7	4	---	11	10	1	---	15.7	
Middlefield	900	12	16	28	31.1	19	4	1	3	1	---	4	---	1	---	---	5	1	---	5	5	---	7	6	1	---	77.7	
Old Saybrook	1,400	8	13	21	15.	13	5	1	2	---	---	6	---	---	---	---	7	1	---	11	5	---	16	14	2	---	11.3	
Portland	4,500	62	46	111	24.6	37	53	10	11	---	---	11	38	7	---	---	56	---	---	52	50	1	103	73	30	---	22.8	
Saybrook	1,300	14	14	28	21.5	22	2	---	2	1	---	8	1	---	---	---	9	1	---	9	11	---	20	16	4	---	14.6	
Wesbrook	850	7	8	15	17.6	14	1	---	---	---	---	7	1	1	---	---	9	2	---	7	9	---	16	16	---	---	16.4	
Total	36,354	365	329	3	707	19.4	422	162	51	54	17	1	166	74	23	10	---	273	24	2	321	331	4	656	514	135	7	18.

TABLE II.—TOLLAND COUNTY.

TOWNS	Estimated Population.	BIRTHS.					MARRIAGES.								DEATHS.														
		SEX.			Birth-rate per 1,000.	PARENTAGE.				NATIVITY.				SEX.		NATIVITY.		Death-rate per 1,000.											
		Male.	Female.	Not stated.		Both Amer.	Both Foreign.	Am. Mother.	For. Father.	Am. Father.	For. Mother.	Both For. of diff. Nations.	Not stated.	Both Amer.	Both Foreign.	Husb. Amer., Wife Foreign.	Husb. Foreign, Wife Amer.		Not stated.	Total.	Male.	Female.	Not stated.	American.	Foreign.	Not stated.			
Tolland	1,200	13	1	—	13	—	—	—	—	1	—	—	—	—	5	1	—	—	—	6	3	5	—	8	6	2	—	66.6	
Andover	385	5	6	—	10	—	—	—	—	1	—	—	—	—	3	—	—	—	—	3	2	5	—	7	7	—	—	18.1	
Bolton	500	8	2	—	10	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	6	4	—	10	9	1	—	20.	
Columbia	700	4	7	—	7	—	—	—	—	—	—	—	—	—	3	—	—	—	—	3	2	7	—	9	9	—	—	12.8	
Coventry	1,970	14	15	—	21	5	1	1	1	—	—	—	—	—	6	8	1	—	—	15	19	8	—	27	24	3	—	13.6	
Ellington	1,500	18	11	—	20	5	2	3	—	—	—	—	—	—	4	1	1	—	—	7	18	9	—	18	14	4	—	12.	
Hebron	1,250	11	6	—	7	4	2	2	—	—	—	—	—	—	5	1	—	—	—	6	8	13	—	21	19	2	—	16.8	
Mansfield	2,000	16	17	—	25	4	1	3	—	—	—	—	—	—	4	1	—	—	—	5	17	7	—	24	21	3	—	12.	
Somers	1,242	17	19	—	22	7	4	3	—	—	—	—	—	—	7	—	—	—	—	7	2	10	13	23	21	—	—	18.4	
Stafford	4,900	49	29	—	47	14	8	6	1	—	—	—	—	—	25	4	4	3	—	36	10	1	22	19	41	30	9	2	83.7
Union	500	6	7	—	10	—	—	—	—	—	—	—	—	—	4	—	—	—	—	4	1	9	5	14	14	—	—	28.	
Vernon	8,000	85	89	—	58	74	22	16	5	—	—	—	—	—	30	18	6	11	—	65	3	51	53	104	75	29	—	13.	
Willington	1,050	6	4	—	9	2	2	—	—	—	—	—	—	—	6	—	—	—	—	7	2	5	—	10	8	2	—	95.2	
Total	25,197	252	213	3	256	117	46	36	10	3	103	34	12	16	—	165	19	5	—	316	153	163	55	4	257	55	4	—	12.1

TABLE III.—RECAPITULATION BY COUNTIES.

COUNTIES.	BIRTHS.					MARRIAGES.										DEATHS.													
	SEX.					PARENTAGE.					NATIVITY.					SEX.					NATIVITY.								
	Male.	Female.	Not stated.	Total.	Birth-rate per 1,000.	Both American.	Both Foreign.	Am. Father.	Am. Mother.	Both Foreign of different Nations.	Both non-resident.					Male.	Female.	Not stated.	Total.	American.	Foreign.	Not stated.							
											Husband non-resident.	Wife American.	Wife Foreign.	Husb. American.	Husb. Foreign.														
Hartford ----	141,145	1623	1615	35	3273	23.1	1439	1036	330	247	107	114	Not stated.	640	321	106	115	--	1182	128	50	1238	1161	10	2409	1834	548	27	17.
New Haven -	193,040	2631	2298	17	4946	25.6	1917	1717	488	334	180	310	--	860	479	112	159	--	1610	98	29	1742	1587	2	3331	2457	842	32	17.2
New London -	80,856	785	804	15	1604	19.8	851	506	119	87	40	1	--	411	115	37	57	1	621	64	13	623	653	3	1279	1026	235	18	15.8
Fairfield ----	138,260	1545	1456	39	3040	21.9	1584	843	257	205	97	54	--	592	210	59	70	1	932	97	15	1155	1067	8	2230	1676	437	117	16.1
Windham ---	45,700	483	465	9	957	20.9	388	423	55	73	15	3	--	213	99	30	23	2	367	45	19	350	380	5	735	572	123	40	16.
Litchfield ---	54,777	517	418	4	939	17.1	580	215	76	45	13	10	--	243	59	20	25	--	347	21	4	330	330	---	660	549	87	24	12.
Middlesex. --	36,354	365	339	3	707	19.4	422	162	51	54	17	1	--	166	74	23	10	--	273	24	2	321	331	4	656	514	135	7	18.
Tolland -----	25,197	252	213	3	468	18.5	256	117	46	36	10	3	--	103	34	12	16	--	165	19	5	163	153	---	316	257	55	4	12.1
Total. ----	715,329	8201	7608	125	15934	22.2	7437	5019	1422	1081	479	496	--	3228	1391	399	475	4	5497	486	137	5922	5662	32	11616	8885	2462	269	16.23

TABLE IV.

EXHIBITING THE NUMBER OF BIRTHS, BY SEXES, IN THE SEVERAL COUNTIES FOR EACH MONTH OF THE YEAR ENDING DECEMBER 31, 1886.

COUNTIES.	SEX.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mo. not stat.	TOTAL.
Hartford	Male-----	159	144	130	117	133	125	140	143	145	131	128	122	--	1,623
	Female----	117	132	134	137	144	124	147	138	122	142	134	144	--	1,615
	Not Stated..	5	2	3	----	1	6	1	4	3	1	4	5	--	35
	Total----	281	278	273	254	278	255	288	285	270	274	266	271	--	3,273
New Haven	Male-----	198	208	235	188	207	220	232	252	242	193	229	227	--	2,631
	Female----	184	179	202	173	190	191	200	199	221	215	178	166	--	2,298
	Not Stated..	----	----	3	----	2	2	2	1	1	1	3	2	--	17
	Total----	382	387	430	361	399	413	434	452	464	409	410	395	--	4,946
New London	Male-----	60	61	71	54	72	60	70	64	67	71	62	73	--	785
	Female----	51	61	85	65	67	64	66	79	76	61	56	73	--	804
	Not Stated..	1	1	2	1	3	1	--	1	1	2	2	--	--	15
	Total----	112	123	158	120	142	125	136	144	144	134	120	146	--	1,604
Fairfield	Male-----	123	109	117	112	107	131	142	134	140	129	150	151	--	1,545
	Female----	123	127	123	107	106	127	124	127	131	133	105	123	--	1,456
	Not Stated..	2	4	3	6	4	5	3	2	3	2	2	3	--	39
	Total----	248	240	243	225	217	263	269	263	274	264	257	277	--	3,040
Windham	Male-----	40	33	43	47	41	34	46	50	27	36	35	51	--	483
	Female----	34	36	38	32	58	40	28	45	35	45	37	37	--	465
	Not Stated..	1	1	--	--	--	1	1	--	1	--	1	3	--	9
	Total----	75	70	81	79	99	75	75	95	63	81	73	91	--	957
Litchfield	Male-----	35	41	42	49	46	38	48	43	61	44	38	31	1	517
	Female----	27	36	23	34	30	42	44	34	40	29	44	35	--	418
	Not Stated..	----	----	----	1	----	----	----	----	----	----	2	1	--	4
	Total----	62	77	65	84	76	80	92	77	101	73	84	67	1	939
Middlesex	Male-----	28	27	27	28	36	20	35	38	29	26	32	39	--	365
	Female----	32	18	32	27	30	27	28	23	29	42	26	25	--	339
	Not Stated..	----	----	----	----	1	----	----	1	----	1	----	----	--	3
	Total----	60	45	59	55	67	47	63	62	58	69	58	64	--	707
Tolland	Male-----	16	28	18	20	22	25	21	29	24	14	15	20	--	252
	Female----	17	16	18	25	16	16	17	19	18	12	16	23	--	213
	Not Stated..	----	----	1	----	----	----	----	1	----	----	1	----	--	3
	Total----	33	44	37	45	38	41	38	49	42	26	32	43	--	468
Total	Male-----	659	611	689	615	664	653	734	753	735	644	689	714	1	8,201
	Female----	585	605	655	600	641	631	654	664	672	679	596	626	--	7,608
	Not Stated..	9	8	12	8	11	15	7	10	9	7	15	14	--	125
Grand Total		1253	1264	1356	1223	1316	1299	1395	1427	1416	1330	1300	1354	1	15,934

TABLE V.

EXHIBITING THE NUMBER OF DEATHS, BY SEXES, IN THE SEVERAL COUNTIES FOR EACH MONTH IN THE YEAR ENDING DECEMBER 31, 1886.

COUNTIES.	SEX.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mo. not stat.	TOTAL.
Hartford ---	Male.....	102	94	119	114	98	86	115	124	85	94	108	98	1	1,238
	Female.....	85	75	110	97	85	83	100	123	101	108	89	104	1	1,161
	Not Stated..	---	---	---	---	---	1	---	3	2	2	1	1	---	10
	Total ---	187	169	229	211	183	170	215	250	188	204	198	203	2	2,409
New Haven	Male.....	120	139	181	189	114	125	196	178	135	121	126	118	---	1,742
	Female.....	128	116	150	163	124	93	150	174	124	141	117	107	---	1,587
	Not Stated..	---	---	1	---	---	---	---	1	---	---	---	---	---	2
	Total ---	248	255	332	352	238	218	346	353	259	262	243	225	---	3,331
New London	Male.....	40	54	46	56	52	32	59	68	63	48	49	55	1	623
	Female.....	52	45	71	45	36	54	59	76	62	58	50	45	---	653
	Not Stated..	1	---	1	---	---	---	1	---	---	---	---	---	---	3
	Total ---	93	99	118	101	88	86	119	144	125	106	99	100	1	1,279
Fairfield ---	Male.....	81	93	106	94	85	104	108	132	105	84	78	84	1	1,155
	Female.....	84	81	90	95	87	72	98	112	96	87	76	88	1	1,067
	Not Stated..	1	---	1	---	---	---	---	2	1	---	2	1	---	8
	Total ---	166	174	197	189	172	176	206	246	202	171	156	173	2	2,230
Windham ---	Male.....	29	15	22	35	22	15	35	38	30	35	34	40	---	350
	Female.....	24	21	29	41	25	32	39	37	28	50	22	32	---	380
	Not Stated..	---	1	---	---	---	1	---	---	---	---	1	2	---	5
	Total ---	53	37	51	76	47	48	74	75	58	85	57	74	---	735
Litchfield ---	Male.....	27	27	27	26	32	24	21	35	30	35	26	20	---	330
	Female.....	25	23	36	17	26	30	29	24	37	28	25	30	---	330
	Not Stated..	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Total ---	52	50	63	43	58	54	50	59	67	63	51	50	---	660
Middlesex ---	Male.....	25	18	23	28	37	23	27	26	29	26	23	36	---	321
	Female.....	25	23	27	28	32	20	26	20	26	23	33	48	---	331
	Not Stated..	---	---	---	---	---	---	1	---	---	1	1	1	---	4
	Total ---	50	41	50	56	69	43	54	46	55	50	57	85	---	656
Tolland ----	Male.....	14	15	10	9	13	12	18	21	12	18	9	12	---	163
	Female.....	18	13	10	19	15	7	11	14	8	10	9	19	---	153
	Not Stated..	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Total ---	32	28	20	28	28	19	29	35	20	28	18	31	---	316
Total ----	Male.....	438	455	534	551	453	421	579	622	489	461	453	463	3	5922
	Female.....	441	497	523	505	430	391	512	580	482	505	421	473	2	5662
	Not Stated..	2	1	3	---	---	2	2	6	3	3	5	5	---	32
Grand Total		881	953	1060	1056	883	814	1093	1208	974	969	879	941	5	11616

[illegible]

CLASS II.—Constitutional.

ORDER 1. DIATHETIC.

[illegible]

ORDER 2. TUBERCULAR.

[illegible]

[illegible]

TABLE VI—CONTINUED. HARTFORD COUNTY.

DISEASES.	HARTFORD COUNTY.																												STATE.		
	Hartford.	Avon.	Berlin.	Bloomfield.	Bristol.	Burlington.	Canton.	East Granby.	East Hartford.	East Windsor.	Enfield.	Farmington.	Glastonbury.	Granby.	Harland.	Manchester.	Marlborough.	New Britain.	Newington.	Plainville.	Rocky Hill.	Simsbury.	South Windsor.	Suffield.	West Hartford.	Wethersfield.	Windsor.	Windsor Locks.		Total.	
Hernia	18	1							1													2	1					1	6		
Obstruction of Bowels	20			1																										1	4
Intussusception	10										1						3														4
Stricture of Intestines	8																														
Colic	7										1					1															2
Hemorrhage from Intestines	14	1															1							1							3
Typhilitis	3	1										1																			2
Ulcer of Stomach	11				1																										1
Hemorrhage from Stomach	10																														1
Dyspepsia	5			1																											1
Disease of Stomach	18											2										1							1		3
Cirrhosis of Liver	40	4				1						2																			9
Hepatitis	30	1							1																						4
Jaundice	17	1																													1
Biliary Calculi	10																														
Abscess of Liver	4																														
Disease of Liver	62	12			1						2	2	1																1		18
Disease of Spleen	4																														2
Hemorrhoids	1									1																					
Fistula	5																														
ORDER 5. URINARY ORGANS.																															
Nephritis	50	1																						1		1				4	
Uræmia	25	3															3									2					8
Bright's Disease	233	40	2		2		5	3	1	2			1	1	1	2	5									1	4	2			72
Pyelitis	1																														
Cystitis	26	2							1				1											1	1						6

[illegible]

	44	7	1	1	1	3	1	2	1	1	1	13
Burns and Scalds	78	7	1	1	1	3	1	1	1	1	1	15
Drowning	17	1	1	1	1	1	1	1	1	1	1	1
Poison	17	2	1	1	1	1	1	1	1	1	1	4
Suffocation	33	1	1	1	1	3	1	1	1	1	1	4
Otherwise	97	9	1	1	1	1	1	1	1	1	1	16
R. R. Accidents	34	6	1	1	1	1	1	1	1	1	1	9
Falling	11	3	1	1	1	1	1	1	1	1	1	6
Freezing	4	1	1	1	1	1	1	1	1	1	1	4
Lightning	2	1	1	1	1	1	1	1	1	1	1	1
Gunshot	2	1	1	1	1	1	1	1	1	1	1	1
ORDER 2. IN BATTLE.												
ORDER 3. HOMICIDE.												
Murder	6	2	1	1	1	2	1	1	1	1	1	2
Manslaughter	4	1	1	1	1	1	1	1	1	1	1	1
ORDER 4. SUICIDE.												
By Gunshot	84	2	1	1	1	1	1	1	1	1	1	2
By Poison	18	3	1	1	1	1	1	1	1	1	1	5
By Hanging	7	1	1	1	1	1	1	1	1	1	1	4
By Drowning	11	1	1	1	1	1	1	1	1	1	1	3
By Wound	1	1	1	1	1	1	1	1	1	1	1	1
By Cars	5	1	1	1	1	1	1	1	1	1	1	1
By Cut or Stab	3	1	1	1	1	1	1	1	1	1	1	1
Otherwise	3	1	1	1	1	1	1	1	1	1	1	1
UNCLASSIFIED.												
Abscess	28	2	1	1	1	1	1	1	1	1	1	5
Anasarca	3	1	1	1	1	1	1	1	1	1	1	1
Asphyxia	7	1	1	1	1	1	1	1	1	1	1	3
Collapse	2	1	1	1	1	1	1	1	1	1	1	1
Dropsy	106	1	1	1	1	4	1	1	1	1	1	2
Fallen Abdomen	1	1	1	1	1	1	1	1	1	1	1	1
Hemorrhage	7	5	1	1	1	1	1	1	1	1	1	5
Nervous Prostration	10	1	1	1	1	1	1	1	1	1	1	1
Tumor	18	2	1	1	1	1	1	1	1	1	1	7
Not stated	305	1	1	1	1	33	5	8	9	1	2	66

RECAPITULATION OF HARTFORD COUNTY.

CLASSIFIED DISEASES.	HARTFORD COUNTY.																											TOTAL.			
	STATE.	Hartford.	Avon.	Berlin.	Bloomfield.	Bristol.	Burlington.	Canton.	East Granby.	East Hartford.	East Windsor.	Enfield.	Farmington.	Glastonbury.	Granby.	Hartland.	Manchester.	Marlborough.	New Britain.	Newington.	Plainville.	Rocky Hill.	Simsbury.	South Windsor.	Suffield.	West Hartford.	Wethersfield.	Windsor.	Windsor Locks.		
All causes	11616	977	641	20	72	15	46	21	73	51	144	40	49	17	8	148	4	308	19	23	16	34	70	28	30	27	50	45	27	2409	
CLASSES.																															
I. Zymotic Diseases.	2311	164	1	10	1	17	5	15	3	16	17	25	10	10	1	2	36	1	73	4	5	2	6	9	5	4	3	8	7	4	464
II. Constitutional Diseases.	2067	174	6	3	7	3	5	6	14	2	22	4	1	2	2	28	62	4	62	4	2	3	4	10	5	9	4	13	12	7	424
III. Local Diseases.	4390	379	4	20	11	37	2	23	4	30	18	50	18	9	8	4	54	112	9	12	8	17	32	8	11	10	25	17	15	949	
IV. Developmental Diseases.	1852	204	4	3	6	3	3	7	11	11	9	2	10	5	5	17	40	1	40	2	1	4	16	5	4	4	3	7	1	382	
V. Violence.	485	46	1	1	2	3	1	1	2	5	3	1	1	1	1	3	1	9	2	2	2	2	2	2	3	1	1	1	2	92	
Unclassified.	206	10	1	1	1	1	1	1	1	1	1	3	4	5	2	8	2	3	1	1	1	1	1	1	1	1	1	1	2	32	
Causes not stated	305	—	—	—	—	1	1	—	—	—	—	33	—	5	—	—	8	—	9	—	—	—	1	2	1	5	—	—	—	66	
Class I. Orders.																															
1. Miasmatic Diseases.	2230	150	1	10	1	15	5	15	3	14	17	25	10	10	1	1	36	1	73	4	5	2	6	8	5	4	3	8	7	4	444
2. Euthetic Diseases.	14	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
3. Dietic Diseases.	66	13	—	—	—	—	—	—	2	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	17	
4. Parasitic	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Class II. Orders.																															
1. Diathetic Diseases.	448	38	—	—	1	2	—	—	1	5	—	5	3	3	2	5	—	5	1	—	—	2	1	3	1	4	—	1	2	—	85
2. Tubercular Diseases.	1619	136	6	2	5	3	5	3	5	9	2	17	1	8	2	23	—	57	3	2	1	3	4	5	4	5	4	12	10	7	339

Class III. Orders.

1.	Diseases of Nervous System	1446	123	2	9	2	10	--	6	12	24	3	3	3	--	22	1	36	1	6	1	10	7	4	6	1	7	8	4	32
2.	Organs of Circulation	744	60	2	--	1	8	--	1	8	12	1	2	4	2	8	--	12	4	2	1	3	7	--	2	2	4	2	150	
3.	Respiratory Organs	1140	105	--	6	4	11	1	3	2	9	2	5	7	2	1	15	1	4	1	3	4	11	2	--	2	4	1	7	256
4.	Digestive Organs	615	39	--	3	3	3	1	--	3	1	6	7	--	1	6	--	11	--	1	3	--	6	--	2	1	2	4	106	
5.	Urinary Organs	392	46	1	2	--	5	--	5	1	4	2	3	--	2	1	3	--	12	1	2	--	--	2	1	4	5	--	104	
6.	Generative Organs	41	5	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	
7.	Organs of Locomotion	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	
8.	Integumentary System	9	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	---	

Class IV. Orders.

1. Developmental Diseases of Children	943	124	2	1	5	1	4	3	1	2	28	2	1	112	2	1	2	191
2. Developmental Diseases of Women	75	2	1	1	1	1	1	1	1	5	3	1	1	1	1	1	14	
3. Developmental Diseases of Old People	689	62	1	1	2	3	5	7	5	9	1	6	3	3	4	2	144	
4. Diseases of Nutrition	145	16	1	1	1	1	3	3	4	2	16	2	1	1	1	1	26	

Class V. Orders.

1. Accident or Negligence.	393	38	1	1	2	1	1	2	4	3	1	1	8	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
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[illegible]

ORDER 2. ORGANS OF CIRCULATION.

ORDER 2. ORGANS OF CIRCULATION.									
Aneurism	13	4	1	1	1	1	1	1	6
Angina Pectoris	36	9	1	1	1	1	1	1	14
Pericarditis	13	4	2	2	1	1	1	1	6
Heart Disease	640	76	4	1	8	1	5	1	153
Embolism	14	2	1	3	1	1	1	1	8
Phlebitis	1	1	1	1	1	1	1	1	10
Senile Gangrene	27	3	1	1	1	1	1	1	1

ORDER 3. RESPIRATORY ORGANS.

ORDER 3. RESPIRATORY ORGANS.					
Nose Bleeding	1				
Laryngitis	17	4			
Croup, Non-Membranous	5				
Bronchitis	197	34	1	1	
Pleurisy	16	1		1	
Pneumonia	837	117	2	6	
Hæmoptysis	11	3		3	
Edema of Lungs	1			1	
Hydrothorax	5			2	
Emphysema	6	1			
Disease of Lung	11	3		1	
Empyæmia	4				
Gangrene of Lungs	2				
Asthma	18	1		1	

ORDER 4. DIGESTIVE ORGANS.

ORDER 4. DIGESTIVE ORGANS.									
Tonsillitis	2								1
Pharyngitis	1								1
Gastritis	83	10	1					2	5
Enteritis	50	12							4
Gastro Enteritis	41	15		3	1	1	2		2
Peritonitis	127	14	1	2	5	1	1	2	4
Ascites	8				1				1
Ulceration of Intestines	9								1
Hernia	18	2	1					1	1
Obstruction of Bowels	20	5					1		2
Catarrhusception	10						1		1

[illegible]

TABLE VI.—CONTINUED. NEW HAVEN COUNTY.

DISEASES.	New Haven.																									STATE.
	Beacon Falls.	Bethany.	Brantford.	Cheshire.	Derby.	East Haven.	Guilford.	Hamden.	Madison.	Meriden.	Middlebury.	Milford.	Naugatuck.	North Branford.	North Haven.	Orange.	Oxford.	Prospect.	Seymour.	Southbury.	Wallington.	Waterbury.	Wolcott.	Woodbridge.	TOTAL.	
Strophulus	1																									
Gangrene of Cord	1																									
ORDER 2. OF WOMEN.																										
Abortion and Miscarriage	21	2																		1						4
Prematural Labor	9	2																								6
Placenta Previa	4																									2
Puerperal Convulsions	17	2																								6
Puerperal Hemorrhage	18	4																								5
Puerperal Nephritis	1																									
Puerperal Mania	2																									
Rupture of Uterus	1																									
Turn of Life	2																									
ORDER 3. OF OLD PEOPLE.																										
Old Age	783	77	1	1	2	5	3	2	5		4	10			5	4	3	2	1	2		1	6	14	3	151
ORDER 4. OF NUTRITION.																										
Asthenia	85	2					4					1		1	2					1						11
Marasmus	7																									
Inanition	48	2			1			1	2	1													4			12
CLASS V.—Violence.																										
ORDER 1. VIOLENCE.																										
Accident	3																									
Fractures and Contusions	38	4					1					1		1						1		1		1		10
Wounds	15	2			1										2	1							2			9

[illegible]

RECAPITULATION OF NEW HAVEN COUNTY.

CLASSIFIED DISEASES.	STATE.																									Woodbridge.	TOTAL.
	New Haven.	Beacon Falls.	Bethany.	Branford.	Cheshire.	Derby.	East Haven.	Guilford.	Hamden.	Madison.	Meriden.	Middlebury.	Naugatuck.	North Branford.	North Haven.	Orange.	Oxford.	Prospect.	Seymour.	Southbury.	Wallingford.	Waterbury.	Wolcott.				
All causes	11616	1480	12	649	28	267	16	47	37	24	373	851	99	25	33	66	21	7	37	15	78	529	10	13331			
CLASSES.																											
I. Zymotic Diseases	2311	282	1	1	3	73	3	8	6	2	99	6	26	3	6	11	3	3	14	2	13	163	3	734			
II. Constitutional Diseases	2067	282	3	1	10	3	48	6	4	5	2	60	2	9	9	3	5	11	1	2	9	12	108	2	1598		
III. Local Diseases	4390	573	5	2	23	13	88	4	24	18	11	146	5	19	40	11	13	32	8	2	7	932	167	4	1264		
IV. Developmental Diseases	1852	282	2	1	7	9	40	3	9	3	6	41	6	12	3	6	3	5	2	13	74	3	536				
V. Violence	485	55	1	1	1	11	11	2	3	3	6	1	4	4	2	3	4	6	2	1	7	12	1	130			
Unclassified	206	5	1	1	1	7	1	1	2	2	16	2	1	2	1	2	1	1	1	1	1	3	1	40			
Causes not stated	305	1	1	4	1	1	1	1	1	1	5	7	1	1	1	2	1	1	1	1	1	2	1	29			
Class I. Orders.																											
1. Miasmatic Diseases	2230	271	1	1	3	70	3	8	6	2	97	6	26	3	6	11	3	3	14	1	13	152	3	706			
2. Enthetic Diseases	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4				
3. Dietic Diseases	66	10	1	1	1	3	1	1	1	1	2	1	1	1	1	1	1	1	1	1	8	1	24				
4. Parasitic Diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Class II. Orders.																											
1. Diathetic Diseases	448	57	1	2	2	6	1	3	1	1	7	1	2	1	2	5	1	1	3	5	17	1	116				
2. Tubercular Diseases	1619	225	3	1	8	1	42	5	1	4	1	53	1	7	8	3	3	6	1	2	6	7	91	2	1482		

Class III. Orders.

[illegible]

Class IV. Orders.

	1943	191	1	4	4	32	2	1	2	25	6	2	5	4	1	6	51	337
1. Developmental Diseases of Children	943	191	1	4	4	32	2	1	2	25	6	2	5	4	1	6	51	337
2. Developmental Diseases of Women	75	10	---	---	---	1	---	1	---	5	---	1	---	---	1	1	4	24
3. Developmental Diseases of Old People	689	77	1	1	2	5	3	2	5	4	10	5	4	3	2	1	2	151
4. Diseases of Nutrition	145	4	---	---	1	---	4	1	2	1	---	1	2	---	---	---	5	24

Class V. Orders.

[illegible]

ORDER 2. ENTHETIC.									
14								1	1
	Syphilis								
ORDER 3. DIETIC.									
2	Privation								
17	{ Delirium Tremens								1
42	{ Intemperance								3
ORDER 4. PARASITIC.									
1	Worms								
CLASS II.—Constitutional.									
ORDER 1. DIATHETIC.									
24	Anemia								6
3	Rachitis								
280	Cancer								3
90	Rheumatism								12
42	Diabetes								
4	Leucocythemia								1
2	Goitre								1
1	Addison's Disease								1
1	Hodgkin's Disease								
ORDER 2. TUBERCULAR.									
35	Scrofula								6
1364	Pulmonary Consumption								188
52	Consumption of Bowels								5
50	Tubercular Meningitis								9
4	Tubercular Laryngitis								
65	Tabes Mesenterica								7
39	Hydrocephalus								4
1	Port's Disease								

CLASS II.—Constitutional.

ORDER 1. DIATHETIC.					
Anæmia	24		1		6
Rachitis	3				
Cancer	280	5	2	1	3
Rheumatism	90			2	41
Rheumatism	42			1	12
Diabetes					
Leucocythemia	4				
Goitre	2			1	1
Addison's Disease	1			1	1
Hodgkin's Disease	1				
ORDER 2. TUBERCULAR.					
Scrofula	35	4			6
Pulmonary Consumption	1364	32	1	9	4
Consumption of Bowels.	52	1			188
Tubercular Meningitis	50			1	5
Tubercular Laryngitis	4				9
Tabes Mesenterica	65	2			
Hydrocephalus	39	1		1	4
Port's Disease	1				7

ORDER 2. ORGANS OF CIRCULATION.

Case	Age	Sex	Occupation	Onset	Duration	Site	Character	Course	Result
1	36	M	Angina Pectoris	13	2	Left	Aneurism	1	3
2	13	F	Angina Pectoris	36	1	Left	Angina Pectoris	1	1
3	13	F	Angina Pectoris	13	1	Left	Angina Pectoris	1	1
4	640	M	Pericarditis	16	2	Left	Pericarditis	2	7
5	14	M	Heart Disease	14	1	Left	Heart Disease	2	4
6	14	M	Embolism	14	1	Left	Embolism	1	1
7	1	F	Phlebitis	1	1	Left	Phlebitis	1	1
8	27	M	Senile Gangrene	27	2	Left	Senile Gangrene	1	3

ORDER 3. RESPIRATORY ORGANS.

[illegible]

ORDER 4. DIGESTIVE ORGANS.

[illegible]

[illegible]

[illegible]

Class II. Orders.

Class II. Orders.										
1. Diathetic Diseases.....	448	6	2	1	2	1	5	2	23	4 62
2. Tubercular Diseases.....	1619	40	10	4	1	8	6	5	6 82	4 220

Class III. Orders.

1.	Diseases of Nervous System.....	1446	34	3	2	4	3	7	7	3	1	1	--	8	48	--	5	4	2	5	14	1	4	154
2.	Organs of Circulation.....	744	19	--	4	--	1	2	6	5	2	--	3	27	1	3	3	--	4	7	--	--	90	
3.	Respiratory Organs.....	1140	6	--	3	4	1	5	3	1	2	--	1	2	30	3	3	--	4	10	--	2	83	
4.	Digestive Organs.....	615	5	--	1	1	--	2	1	--	1	1	1	8	34	2	1	--	2	4	3	--	68	
5.	Urinary Organs.....	392	7	--	3	1	--	--	5	2	1	--	1	1	21	--	1	2	1	1	2	--	50	
6.	Generative Organs.....	41	5	--	--	--	--	--	--	--	--	--	--	1	3	--	--	1	--	--	--	--	10	
7.	Organs of Locomotion.....	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
8.	Integumentary System.....	9	1	--	--	--	--	--	--	--	1	--	--	2	--	1	--	--	--	--	--	--	3	

Class IV. Orders.

1. Developmental Diseases of Children.....	943	17	2	3	3	10	4	1	1	6	64	2	3	3	9	1	130
2. Developmental Diseases of Women.....	75	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	7
3. Developmental Diseases of Old People.....	689	13	2	4	1	1	3	10	3	4	4	18	3	7	3	6	1
4. Diseases of Nutrition.....	145	17	1	2	1	2	2	1	1	1	1	6	1	1	3	1	32

Class V. Orders.

[illegible]

TABLE VI.—CONTINUED. FAIRFIELD COUNTY.

DISEASES.	CLASS I.—Zymotic.																								TOTAL.
	ORDER 1. MIASMATIC.																								
	STATE.	Danbury.	Bridgeport.	Bethel.	Brookfield.	Darien.	Easton.	Fairfield.	Greenwich.	Huntington.	Monroe.	New Canaan.	New Fairfield.	Newtown.	Norwalk.	Redding.	Ridgefield.	Sherman.	Stamford.	Stratford.	Trumbull.	Weston.	Westport.	Wilton.	
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Varicoid	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Measles	9	—	—	—	—	—	—	—	—	5	—	—	—	—	—	2	—	—	3	—	—	—	—	—	
Scarlet Fever	117	1	1	—	—	—	—	—	—	—	—	—	—	—	—	7	1	8	6	—	—	—	1	13	
Diphtheria	359	9	45	—	—	3	—	—	14	—	15	—	—	1	—	1	—	2	—	—	—	—	—	109	
Croup, Membranous	203	3	23	—	—	—	—	1	—	4	—	—	—	—	—	3	—	5	1	—	—	—	—	38	
Whooping Cough	106	—	6	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18	
Fever, Typhoid	244	10	—	—	—	—	—	2	2	2	—	—	—	—	2	1	—	2	3	2	1	—	—	30	
Fever, Typho-Malarial	57	4	—	3	—	—	—	1	1	—	—	—	—	—	—	5	—	1	—	—	—	—	—	14	
Fever, Malarial	53	2	—	—	—	—	—	—	2	—	—	—	—	1	4	—	—	3	—	—	2	—	—	14	
Fever, Intermittent	9	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	2	
Fever, Remittent	23	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	3	
Fever, Pernicious	13	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Fever, Cerebro-Spinal	11	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Fever, Puerperal	40	4	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	6	
Erysipelas	73	1	10	—	—	1	—	—	1	—	—	—	—	—	—	1	—	3	1	—	1	1	—	20	
Carbuncle	4	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Influenza	3	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Dysentery	176	1	9	—	—	—	—	1	2	—	—	—	—	2	—	—	—	2	6	—	—	1	—	24	
Diarrhoea	65	1	5	—	—	—	—	1	—	—	—	1	—	1	2	—	—	—	1	—	—	—	—	13	
Infantile Diarrhoea	590	32	44	2	—	2	—	1	9	1	—	—	—	—	14	—	1	1	12	—	—	4	—	124	
Cholera Morbus	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	5	
Malignant Pustule	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pyæmia and Septicæmia	43	2	1	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	1	—	—	—	—	7	

[illegible]

TABLE VI—CONTINUED. FAIRFIELD COUNTY.

DISEASES.	State.	Danbury.	Bridgeport.	Bethel.	Brookfield.	Dartmouth.	Easton.	Fairfield.	Greenwich.	Huntington.	Monroe.	New Canaan.	New Fairfield.	Newtown.	Norwalk.	Redding.	Ridgefield.	Sherman.	Stamford.	Stratford.	Trumbull.	Weston.	Westport.	Wilton.	Total.
Pott's Disease.....	1														1										1
Hip Joint Disease.....	9																								
CLASS III.—Local.																									
ORDER 1. NERVOUS SYSTEM.																									
Meningitis, Cerebral.....	178	2	14			1		2	3	1				2	2								1		28
Encephalitis.....	60		2		1																		1		6
Softening of Brain.....	73		2	3		1			3						2				1		1		1		16
Apoplexy.....	341	6	9	2		1			1	2		1	1	1	1	1	3	6	2		2	1	2		47
Paralysis.....	278	4	7	3	5	1		5	6			4	1		5			4	3			2			50
Insanity.....	37		2												1										3
Chorea.....	4		1												1										2
Epilepsy.....	36	2	1			1			1																5
Tetanus.....	18	1	2															1	1						5
Trismus Nascutum.....	5								1																1
Spinal Meningitis.....	41		3												1							1	1		6
Disease of Spine.....	12																								1
Neuralgia.....	6			1					1																2
Disease of Brain.....	54		1						1						1			2	1						6
Convulsions.....	279	6	14	2		1		3	1						5			1	7			2			43
Frightened.....	1																								
Hydrocephalus, Chronic.....	1																								
Sun Stroke.....	5																								
Congestion of Brain.....	7																								
Myelitis.....	6		1									1													2
Locomotor Ataxia.....	4														1					2					3

ORDER 2. ORGANS OF CIRCULATION.

ORDER 2. ORGANS OF CIRCULATION.					
Aneurism.....	13	1			1
Angina Pectoris.....	36	2	1		
Pericarditis.....	13	2			
Heart Disease.....	640	12	35	2	1
Embolism.....	14	2			
Phlebitis.....	1		1		
Senile Gangrene.....	27			1	

ORDER 3. RESPIRATORY ORGANS.

[illegible]

ORDER 4. DIGESTIVE ORGANS.

[illegible]

[illegible]

TABLE VI.—CONTINUED. FAIRFIELD COUNTY.

DISEASES.	STATE.	Danbury.	Bridgeport.	Bethel.	Brookfield.	Darien.	Easton.	Fairfield.	Greenwich.	Huntington.	Monroe.	New Canaan.	New Fairfield.	Newtown.	Norwalk.	Redding.	Ridgefield.	Sherman.	Stamford.	Stratford.	Trumbull.	Weston.	Westport.	Wilton.	TOTAL.
ORDER 2. OF WOMEN.																									
Preterm Labor.....	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2
Abortion and Miscarriage	9	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Placenta Previa.....	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Puerperal Convulsions.....	17	1	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Puerperal Hemorrhage.....	18	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	4
Puerperal Nephritis.....	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Puerperal Mania.....	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Rupture of Uterus.....	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turn of Life.....	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ORDER 3. OF OLD PEOPLE.																									
Old Age.....	783	20	19	3	1	3	5	5	14	4	2	4	—	4	11	2	1	2	9	2	2	4	—	3	120
ORDER 4. OF NUTRITION.																									
Asthenia.....	85	2	9	—	—	—	—	—	—	—	1	1	—	1	2	—	—	1	2	3	—	5	—	—	27
Marasmus.....	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Innutrition.....	48	—	6	—	—	—	—	—	—	2	—	—	—	—	5	—	—	—	2	1	—	—	—	—	16
CLASS V.—Violence.																									
ORDER 1. VIOLENCE.																									
Accident.....	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fractures and Contusions	38	1	3	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	4	—	—	—	1	—	12
Wounds.....	15	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Burns and Scalds.....	44	—	5	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	1	—	—	—	—	9
Drowning.....	78	—	8	—	—	—	—	—	1	1	—	—	—	—	3	—	—	—	1	2	—	—	—	—	16
Poison.....	17	—	2	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	5
Suffocation.....	17	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Otherwise.....	33	—	1	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
R. R. Accidents.....	97	4	8	—	—	5	—	—	2	—	—	—	—	—	7	2	—	—	4	3	—	—	1	—	36

[illegible]

Class II. Orders.

Class II. Orders.																				
1. Diathetic Diseases.....	448	5	22	2	1	2	3	3	5	5	4	1	5	3	1	2	83			
2. Tubercular Diseases.....	1619	30	96	4	4	2	4	9	3	2	1	8	35	2	41	19	3	110	4	280

Class III. Orders.

1.	Diseases of Nervous System	1446	23	59	11	6	6	---	10	18	3	1	6	2	3	26	1	3	2	21	11	---	1	9	4	226
2.	Organs of Circulation	744	13	42	3	2	1	1	4	6	12	3	2	1	2	15	---	---	1	18	4	1	1	5	2	139
3.	Respiratory Organs	1140	27	106	7	5	2	2	11	11	4	2	5	---	8	28	3	1	---	17	14	1	---	6	2	262
4.	Digestive Organs	615	8	36	1	---	3	1	2	6	4	---	3	3	2	10	1	2	---	10	5	1	1	1	3	103
5.	Urinary Organs	392	---	24	---	---	1	1	2	5	1	1	---	---	2	12	1	1	7	1	---	---	---	---	61	
6.	Generative Organs	41	3	2	---	---	---	1	---	---	---	---	---	---	1	---	1	---	---	---	1	---	---	2	9	
7.	Organs of Locomotion	3	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	2	2	
8.	Integumentary System	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2	

Class IV. Orders.

1. Developmental Diseases of Children	943	14	77	5	1	2	20	1	11	1	3	1	151			
2. Developmental Diseases of Women	75	3	6	1	1	1	1	1	2	2	1	1	16			
3. Developmental Diseases of Old People	689	20	19	3	1	3	5	14	4	2	4	11	2	4	3	120
4. Diseases of Nutrition	145	2	15	---	---	2	1	---	1	7	---	1	4	---	5	43

Class V. Orders.

[illegible]

[illegible]

CLASS II.—Constitutional.

ORDER 1. DIATHETIC.

 Anæmia
 Rachitis
 Cancer
 Rheumatism
 Diabetes
 Leucocythæmia
 Goitre
 Addison's Disease
 Hodgkin's Disease

ORDER 2. TUBERCULAR.

Scrofula
Pulmonary Consumption
Consumption of Bowels.
Tubercular Meningitis
Tubercular Laryngitis
Tubes Mesenterica
Hydrocephalus

[illegible]

ORDER 2. ORGANS OF CIRCULATION.

Aneurism
Angina Pectoris
Pericarditis
Heart Disease
Embolism
Phlebitis
Senile Gangrene

ORDER 3. RESPIRATORY ORGANS.

Nose Bleeding
Laryngitis
Croup, Non-Membranous
Bronchitis
Pleurisy
Pneumonia
Hæmoptysis
Edema of Lungs
Hydrothorax
Emphysema
Disease of Lung
Empyæma
Gangrene of Lungs
Asthma

ORDER 4. DIGESTIVE ORGANS.

Tonsillitis
Pharyngitis
Gastritis
Enteritis

[illegible]

RECAPITULATION OF WINDHAM COUNTY.

CLASSIFIED DISEASES.	WINDHAM COUNTY.																TOTAL.
	STATE.	Brooklyn.	Ashford.	Canterbury.	Chaplin.	Eastford.	Hampton.	Killingly.	Plainfield.	Pomfret.	Putnam.	Scotland.	Sterling.	Thompson.	Windham.	Woodstock.	
All Causes	11616	33	13	21	9	17	7	151	49	35	122	12	14	85	147	20	735
CLASSES.																	
I. Zymotic Diseases	2311	6	---	4	2	2	---	44	15	13	28	---	1	28	39	2	184
II. Constitutional Diseases	2067	4	1	2	1	2	2	17	5	5	16	1	3	10	23	3	95
III. Local Diseases	4390	20	10	12	6	9	4	57	15	11	38	4	5	25	33	9	258
IV. Developmental Diseases	1852	2	2	3	---	1	1	30	7	3	24	5	4	3	22	3	110
V. Violence	485	1	---	---	---	1	---	2	1	2	6	1	1	5	6	3	29
Unclassified	206	---	---	---	---	2	---	---	2	---	2	1	---	1	4	---	12
Causes not stated	305	---	---	---	---	---	---	1	4	1	8	---	---	13	20	---	47
Class I. Orders.																	
1. Miasmatic Diseases	2230	6	---	4	2	2	---	44	15	11	27	---	1	28	38	2	180
2. Enanthic Diseases	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3. Dietic Diseases	66	---	---	---	---	---	---	---	---	1	1	---	---	---	1	---	3
4. Parasitic Diseases	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1

[illegible]

[illegible]

CLASS IV.—Developmental.

ORDER 1. OF CHILDREN.

Stillborn. _____
Premature Birth. _____
Injuries at Birth. _____
Cyanosis. _____
Spina Bifida. _____
Malformation. _____
Infantile Debility. _____
Atelectasis. _____
Umbilical Hemorrhage. _____
Teething. _____

Burns and Scalds	44	1	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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RECAPITULATION OF LITCHFIELD COUNTY.

CLASSIFIED DISEASES.		STATE.	Litchfield.	Barkhamsted.	Belthlehem.	Bridgewater.	Canaan.	Colebrook.	Corwall.	Goshen.	Harwinton.	Kent.	Morris.	New Hartford.	New Milford.	Norfolk.	North Canaan.	Plymouth.	Roxbury.	Salisbury.	Sharon.	Thomaston.	Torrington.	Warren.	Washington.	Watertown.	Winchester.	Woodbury.	Total.
All causes		11616	44	13	16	13	11	12	24	14	15	16	4	33	65	26	32	35	16	36	33	22	34	7	21	30	70	26	660
CLASSES.																													
I. Zymotic Diseases																													
II. Constitutional Diseases																													
III. Local Diseases																													
IV. Developmental Diseases																													
V. Violence																													
Unclassified.																													
Causes not stated																													
Class I. Orders.																													
1. Miasmatic Diseases																													
2. Euthetic Diseases																													
3. Dietic Diseases																													
4. Parasitic Diseases																													
Class II. Orders.																													
1. Diathetic Diseases																													
2. Tubercular Diseases																													

[illegible]

CLASS II.—Constitutional.

ORDER 1. DIATHETIC.					
Anæmia	24				1
Rachitis	3				
Cancer	280	10	1	1	2
Rheumatism	90	2		1	1
Diabetes	42	1			
Leucocythemia	4			1	
Goutre	2				
Addison's Disease	1				
Hodgkin's Disease	1				
 ORDER 2. TUBERCULAR.					
Scrofula	35				1
Pulmonary Consumption	1364	51	2	1	2
Consumption of Bowels	52	1			
Tubercular Meningitis	50				

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CLASS IV.—Developmental.

ORDER 1. OF CHILDREN.

[illegible]

ORDER 2. IN BATTLE.									
ORDER 3. HOMICIDE.									
ORDER 4. SUICIDE.									
Murder	6								
Manslaughter	4								
ORDER 4. SUICIDE.									
By Gunshot	84								
By Poison	18								
By Hanging	7		1						
By Drowning	11	1	2						
By Wound	1								
By Cars	5								
By Cut or Stab	3								
Otherwise	3								
UNCLASSIFIED.									
Abscess	206								
Anasarca	28	2							
Asphyxia	3								
Collapse	7								
Dropsy	2								
Fallen Abdomen	106	1							
Hemorrhage	1								
Nervous Prostration	7								
Tumor	10								
Not stated	18		1						
	305	4	2	2	1	1	2	1	

RECAPITULATION OF MIDDLESEX COUNTY.

CLASSIFIED DISEASES.	STATE.															TOTAL.	
	Middletown.	Haddam.	Charlham.	Chester.	Clinton.	Cromwell.	Durham.	East Haddam.	Essex.	Killingworth.	Middlefield.	Old Saybrook.	Portland.	Saybrook.	Westbrook.		
All causes	11616	284	27	26	12	29	36	24	32	13	11	7	16	103	20	16	656
CLASSES.																	
I. Zymotic Diseases.	2311	60	2	9	1	4	6	5	3	1	---	---	6	26	2	---	125
II. Constitutional Diseases.	2067	70	3	2	4	6	2	4	9	3	---	---	3	22	6	4	138
III. Local Diseases.	4390	105	13	11	3	10	17	10	14	5	10	3	4	32	11	6	254
IV. Developmental Diseases.	1852	32	3	1	3	6	7	3	2	3	---	2	2	8	---	2	74
V. Violence.	485	9	3	1	---	1	2	2	3	---	---	2	1	3	1	1	29
Unclassified.	206	4	1	---	---	1	---	---	1	1	---	---	---	---	---	1	9
Causes not stated	305	4	2	2	1	1	2	---	---	---	1	---	12	---	---	2	27
Class I. Orders.																	
1. Miasmatic Diseases.	2230	59	2	9	1	4	5	5	3	1	---	---	6	26	2	---	123
2. Enthetic Diseases.	14	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
3. Dietic Diseases.	66	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1
4. Parasitic	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Class II. Orders.																	
1. Diathetic Diseases.	448	13	1	1	2	4	1	1	5	1	---	---	1	2	3	2	37
2. Tubercular Diseases.	1619	57	2	1	2	2	1	3	4	2	---	---	2	20	3	2	101

Class III. Orders.

[illegible]

Class IV. Orders.

[illegible]

Class V. Orders.

[illegible]

[illegible]

[illegible]

ORDER 3. RESPIRATORY ORGANS.

Nose Bleeding
Laryngitis
Group. Non-Membranous
Bronchitis
Pleurisy
Pneumonia
Hæmoptysis
Edema of Lungs
Hydrothorax
Empysema
Disease of Lung
Empyæma
Gangrene of Lungs
Asthma

ORDER 4. DIGESTIVE ORGANS.

Tonsillitis
Pharyngitis
Gastritis
Enteritis
Gastro Enteritis
Peritonitis
Ascites
Ulceration of Intestines
Hernia
Obstruction of Bowels
Intussusception
Stricture of Intestines

ORDER 4. DIGESTIVE ORGANS.

Tonsilitis
Pharyngitis
Gastritis
Enteritis
Gastro Enteritis
Peritonitis
Ascites
Ulceration of Intestines
Hernia
Obstruction of Bowels
Intussusception
Stricture of Intestines

TABLE VI—CONTINUED. TOLLAND COUNTY.

DISEASES.	STATE.	Tolland.	Andover.	Bolton.	Columbia.	Coventry.	Ellington.	Hebron.	Mansfield.	Somers.	Stafford.	Union.	Vernon.	Willington.	TOTAL.
Abortion and Miscarriage	9														
Placenta Previa	4														
Puerperal Convulsions	17										1				1
Puerperal Hemorrhage	18														
Puerperal Nephritis	1														
Puerperal Mania	2														
Rupture of Uterus	1														
Turn of Life	2														
ORDER 3. OF OLD PEOPLE.															
Old Age	783	1				1	2	3	3	4	1	2	5	1	23
ORDER 4. OF NUTRITION.															
Asthenia	85							1							1
Marasmus	7														
Innutrition	48								1						1
CLASS V.—Violence.															
ORDER 1. VIOLENCE.															
Accident	3														
Fractures and Contusions	38														
Wounds	15														
Burns and Scalds	44					1									1
Drowning	78		1								1				2

Poison	17	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</
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Class II. Orders.

Class II. Orders.											
1. Diathetic Diseases-----	448	85	116	62	83	22	26	37	16	3.85	547
2. Tubercular Diseases-----	1619	339	482	220	280	73	85	101	39	13.93	1668

Class III. Orders.

1. Diseases of Nervous System	1446	324	423	154	226	93	79	103	44	12.44	1527
2. Organs of Circulation	744	150	197	90	139	53	44	49	22	6.41	697
3. Respiratory Organs	1140	256	353	83	262	51	67	45	23	9.81	1367
4. Digestive Organs	615	106	187	68	103	44	47	35	25	5.29	568
5. Urinary Organs	292	104	96	50	61	13	34	20	14	3.37	424
6. Generative Organs	41	6	7	10	9	4	3	2	---	.36	29
7. Organs of Locomotion	3	---	---	---	2	---	1	---	---	.02	7
Integumentary System	9	3	1	3	2	---	---	---	---	.08	39

Class IV. Orders.

1. Developmental Diseases of Children	943	198	337	130	151	50	35	24	18	852
2. Developmental Diseases of Women	75	14	24	7	16	6	3	3	2	72
3. Developmental Diseases of Old People	689	144	151	91	120	47	68	45	23	667
4. Diseases of Nutrition	145	26	24	32	43	7	9	2	2	219

Class V. Orders.

[illegible]

DEATHS IN TOWNS, ALPHABETICAL ARRANGEMENT, DISTINGUISHED BY AGE, NATIONALITY AND SEASON. T A B L E V I I -

TOWNS.	AGES.										BIRTHS BY SEASONS.																						
	Under 1 year.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Unknown.	Birthplace, Connecticut.	All other States.	Birthplace, Ireland.	Birthplace, Germany.	Birthplace, England.	Birthplace, Italy.	Canada.	All other Foreign Countries.	Unknown.	Deaths in Spring.	Deaths in Summer.	Deaths in Autumn.	Deaths in Winter.	TOTAL.	Spring.	Summer.	Autumn.	Winter.	TOTAL.	
ANDOVER	2	1	1	1	1	1	1	1	1	1	1	1	4	1	10	1	1	1	1	1	1	1	3	4	1	3	3	4	1	3	3	11	
Ashford	1	1	1	1	1	1	1	1	1	1	1	1	10	1	10	1	1	1	1	1	1	1	3	6	3	3	3	6	3	3	3	9	
Avon	1	1	1	1	1	1	1	1	1	1	1	1	10	1	10	1	1	1	1	1	1	1	3	6	3	3	3	6	3	3	3	11	
Barkhamsted	3	1	1	1	1	1	1	1	1	1	1	1	10	1	10	1	1	1	1	1	1	1	3	6	3	3	3	6	3	3	3	9	
Beacon Falls	3	1	1	1	1	1	1	1	1	1	1	1	10	1	10	1	1	1	1	1	1	1	3	6	3	3	3	6	3	3	3	9	
Berlin	4	3	5	1	6	2	3	2	2	1	1	1	82	1	82	1	1	1	1	1	1	1	4	8	8	16	13	13	15	15	26	48	
Bethany	3	3	3	3	3	3	3	3	3	3	3	3	34	1	34	1	1	1	1	1	1	1	11	11	1	1	1	18	22	18	26	80	
Bethel	3	3	3	3	3	3	3	3	3	3	3	3	16	1	16	1	1	1	1	1	1	1	5	5	6	6	20	16	3	5	8	27	
Bethlehem	3	3	3	3	3	3	3	3	3	3	3	3	14	1	14	1	1	1	1	1	1	1	4	4	4	3	5	16	3	5	8	27	
Bloomfield	3	3	3	3	3	3	3	3	3	3	3	3	16	1	16	1	1	1	1	1	1	1	5	5	6	6	20	16	3	5	8	27	
Bolton	2	2	2	2	2	2	2	2	2	2	2	2	9	1	9	1	1	1	1	1	1	1	4	4	4	3	5	16	3	5	8	27	
Bozrah	2	2	2	2	2	2	2	2	2	2	2	2	9	1	9	1	1	1	1	1	1	1	4	4	4	3	5	16	3	5	8	27	
Brantford	14	1	1	1	1	1	1	1	1	1	1	1	37	2	37	2	1	1	1	1	1	1	12	21	6	4	49	22	249	232	263	279	1063
Bridgeport	191	85	43	31	59	54	58	57	67	45	27	3	434	18	434	18	119	29	26	2	7	13	11	170	157	181	222	249	232	263	279	1063	
Bridgewater	3	1	1	1	1	1	1	1	1	1	1	1	15	1	15	1	1	1	1	1	1	1	6	6	6	16	12	35	34	32	37	138	
Bristol	16	8	1	1	1	1	1	1	1	1	1	1	15	1	15	1	1	1	1	1	1	1	6	6	6	16	12	35	34	32	37	138	
Brookfield	1	1	1	1	1	1	1	1	1	1	1	1	15	1	15	1	1	1	1	1	1	1	6	6	6	16	12	35	34	32	37	138	
Brooklyn	6	3	1	1	1	1	1	1	1	1	1	1	15	1	15	1	1	1	1	1	1	1	6	6	6	16	12	35	34	32	37	138	
Burlington	2	2	1	1	1	1	1	1	1	1	1	1	15	1	15	1	1	1	1	1	1	1	6	6	6	16	12	35	34	32	37	138	
Canaan	3	3	3	3	3	3	3	3	3	3	3	3	16	1	16	1	1	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Canterbury	4	3	3	3	4	2	3	3	3	2	2	1	16	1	16	1	1	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Canton	4	2	1	1	2	1	1	1	1	1	1	1	24	1	24	1	1	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Chapin	5	2	1	1	2	1	1	1	1	1	1	1	24	1	24	1	1	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Chatham	5	2	1	1	2	1	1	1	1	1	1	1	24	1	24	1	1	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Cheshire	4	2	1	1	1	1	1	1	1	1	1	1	17	3	17	3	6	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Chester	1	1	1	1	1	1	1	1	1	1	1	1	9	2	9	2	2	1	1	1	1	1	4	4	4	4	11	5	5	4	4	17	45
Clinton	3	4	3	2	5	1	1	1	1	1	1	1	27	3	27	3	2	2	2	2	2	3	7	14	12	10	47	11	16	13	13	53	119
Colchester	3	4	3	2	5	1	1	1	1	1	1	1	27	3	27	3	2	2	2	2	2	3	7	14	12	10	47	11	16	13	13	53	119
Colebrook	2	1	1	1	1	1	1	1	1	1	1	1	11	1	11	1	1	1	1	1	1	1	2	2	2	2	9	6	3	3	3	13	33
Columbia	2	1	1	1	1	1	1	1	1	1	1	1	11	1	11	1	1	1	1	1	1	1	2	2	2	2	9	6	3	3	3	13	33
Cornwall	2	1	1	1	1	1	1	1	1	1	1	1	11	1	11	1	1	1	1	1	1	1	2	2	2	2	9	6	3	3	3	13	33
Cornwall	2	1	1	1	1	1	1	1	1	1	1	1	11	1	11	1	1	1	1	1	1	1	2	2	2	2	9	6	3	3	3	13	33
Covington	3	2	1	1	1	1	1	1	1	1	1	1	21	1	21	1	1	1	1	1	1	1	6	6	6	9	24	3	3	4	4	22	43
Cromwell	3	2	1	1	1	1	1	1	1	1	1	1	21	1	21	1	1	1	1	1	1	1	6	6	6	9	24	3	3	4	4	22	43
Danbury	66	23	14	27	31	18	20	27	27	18	23	1	144	7	144	10	1	1	1	1	1	3	100	74	81	64	62	281	104	120	114	423	495
Darien	3	4	1	5	2	4	2	1	1	1	1	1	159	25	159	52	5	1	1	1	1	9	64	77	58	68	267	120	118	133	124	495	515
Derby	75	38	16	17	25	19	20	21	21	17	17	1	159	25	159	52	5	1	1	1	1	9	64	77	58	68	267	120	118	133	124	495	515
Durham	1	2	2	1	1	1	1	1	1	1	1	1	12	4	12	4	1	1	1	1	1	1	6	6	6	9	24	3	3	4	4	15	15
Durford	3	1	1	1	1	1	1	1	1	1	1	1	12	4	12	4	1	1	1	1	1	1	6	6	6	9	24	3	3	4	4	15	15

Easton	1	2	1	4	1	6	14	1	1	1	1	5	17	15	1	2	1
East Granby	4	2	2	23	3	5	18	1	1	1	1	6	21	3	3	4	9
East Haddam	11	6	5	29	4	10	54	3	3	3	1	18	32	14	11	12	51
East Haven	2	2	1	22	4	2	12	2	2	2	2	16	21	4	3	18	23
East Lyme	9	2	1	35	3	1	16	2	2	2	4	33	32	18	5	1	13
East Windsor	9	10	5	4	4	4	33	7	4	4	1	15	21	6	3	1	41
Elliington	9	9	1	1	1	1	12	1	1	1	2	14	13	13	17	17	67
Enfield	21	14	1	13	12	7	106	10	20	3	4	1	23	15	55	39	159
Essex	2	1	1	7	16	9	11	2	8	3	2	4	144	27	35	38	31
Fairfield	4	7	3	4	8	9	45	1	8	1	1	2	16	12	18	16	63
Farmington	10	5	4	1	3	6	24	5	8	3	1	9	17	7	14	11	55
Franklin	3	1	1	1	1	3	6	2	2	2	3	4	10	3	1	13	6
Gastonbury	1	1	1	2	6	10	41	2	2	3	1	16	49	20	15	24	72
Goshen	1	1	1	3	3	2	9	3	2	2	1	8	14	11	4	13	10
Granby	3	1	2	1	3	2	14	3	2	2	1	32	17	6	3	5	15
Greenwich	12	12	11	5	10	9	81	26	9	2	1	37	26	19	27	34	138
Gristwood	17	6	4	4	1	5	37	8	2	1	6	13	16	15	26	13	79
Groton	7	5	5	1	1	9	47	10	5	2	1	18	19	13	18	16	28
Guilford	9	5	1	2	1	3	37	5	3	1	1	13	16	8	10	18	84
Haddam	5	2	1	3	5	3	21	5	3	1	1	8	11	8	19	14	32
Hampden	6	7	2	1	1	4	21	6	4	2	1	9	9	11	16	12	62
Hampton	1	1	1	1	1	1	5	1	1	1	5	1	7	4	3	1	8
Hartford	21	88	54	113	77	83	611	181	36	18	4	272	344	222	339	330	1297
Hartland	1	1	1	1	3	2	6	1	3	1	1	2	3	2	1	1	1
Harwinton	1	1	1	1	1	3	10	3	2	3	1	2	15	4	3	3	18
Hebron	2	1	2	1	3	2	16	1	4	3	2	13	17	12	12	8	17
Huntington	7	7	3	2	4	5	35	6	4	2	4	4	54	21	22	18	87
Huntington	1	1	1	1	1	1	10	3	4	3	1	4	16	4	8	3	18
Kent	40	15	4	13	7	10	92	30	4	5	1	42	84	42	33	43	182
Killingly							21	9	1	1	19	2	151	62	45	32	6
Killingworth							9	1	1	1	1	3	7	10	1	2	27
Lebanon							21	2	1	1	1	7	5	10	5	3	21
Ledyard	1	1	1	2	2	4	18	1	1	1	1	3	7	3	5	6	6
Litchfield	3	1	1	2	2	4	5	1	1	1	1	3	7	3	5	3	10
Lisbon	3	1	1	2	2	4	5	1	1	1	1	3	7	3	5	3	10
Lyme	3	2	5	6	5	4	27	7	2	2	2	4	10	16	11	1	1
Lynch	3	1	2	1	3	2	8	1	2	2	1	8	6	11	13	15	64
Madison	3	1	1	3	3	4	18	3	2	1	1	21	4	3	2	2	10
Manchester	26	15	7	15	17	12	90	3	28	6	1	15	26	45	43	44	151
Mansfield	4						18	3	2	2	1	8	4	4	8	29	135
Marlborough	1						4	3	1	1	1	2	1	2	1	1	5
Mendon	79	55	22	33	22	32	251	28	42	21	17	110	85	79	49	134	568
Middlebury							6	1	1	1	12	2	3	3	2	1	10
Middlefield	1	2	1	1	1	1	6	1	1	1	1	2	3	2	1	3	3
Middletown	33	22	21	10	35	29	174	25	49	13	12	75	64	66	79	81	284
Miford	1	1	4	4	5	4	40	5	3	1	1	12	22	22	14	14	59
Monroe	3	3	1	1	1	1	12	3	3	1	1	6	1	1	1	4	6
Montville	13	5	1	3	3	3	40	3	3	2	2	12	13	11	15	17	60

TABLE VII.—CONTINUED.

TOWNS.	AGES.												BIRTHS BY SEASONS.					TOTAL.													
	Under 1 year.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Unknown.	All other States.	Birthplace, Ireland.	Birthplace, Germany.	Birthplace, England.	Birthplace, Italy.	Birthplace, Canada.	All other Foreign Countries.	Unknown.	Deaths in Spring.	Deaths in Summer.	Deaths in Autumn.	Deaths in Winter.	TOTAL.				
Morris	26	13	1	1	1	1	1	1	1	2	2	1	1	3	1	25	2	4	4	—	—	—	—	4	5	3	2	159			
Naugahuc	102	41	1	1	1	1	1	1	1	1	1	1	1	1	56	10	2	4	4	2	2	2	21	27	41	31	139				
New Britain	2	8	1	1	1	1	1	1	1	1	1	1	1	1	10	2	2	11	4	2	2	6	10	14	17	123					
New Canaan	2	8	1	1	1	1	1	1	1	1	1	1	1	1	15	1	3	3	10	1	1	4	6	6	15	9	35				
New Fairfield	2	8	1	1	1	1	1	1	1	1	1	1	1	1	15	1	3	3	10	1	1	4	6	6	15	9	35				
New Hartford	8	4	1	1	1	1	1	1	1	1	1	1	1	1	19	4	2	3	3	—	—	—	—	—	11	28	12	67			
New Haven	405	157	54	76	120	121	128	102	134	108	63	10	2	2	917	175	241	58	14	8	35	15	424	412	517	602	520				
Newington	3	1	1	1	1	1	1	1	1	1	1	1	1	1	14	2	5	5	4	3	19	6	49	68	59	64	207				
New London	40	12	4	14	20	24	21	25	21	25	13	4	1	1	48	27	3	5	11	1	1	16	9	20	16	13	19	22			
New Milford	8	2	2	5	3	6	5	6	10	7	12	1	1	1	41	1	3	2	1	1	1	3	10	14	8	19	11	54			
Newtown	6	3	2	2	9	1	7	6	5	3	5	1	1	1	33	2	12	1	1	—	—	—	5	4	4	3	4	1	8		
Norfolk	2	2	4	4	4	4	4	4	4	4	4	1	1	1	19	2	7	1	1	—	—	—	5	4	4	3	4	1	8		
North Branford	2	1	1	1	1	1	1	1	1	1	1	1	1	1	14	5	1	1	1	—	—	—	7	4	4	3	4	1	22		
North Canaan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	5	1	1	1	—	—	—	7	4	4	3	4	1	22		
North Haven	4	1	1	1	1	1	1	1	1	1	1	1	1	1	27	3	2	2	—	—	—	1	7	4	4	3	4	1	22		
North Stonington	3	3	1	1	1	1	1	1	1	1	1	1	1	1	31	3	—	—	—	—	—	1	9	9	6	10	8	6	29		
Norwalk	56	21	7	11	22	20	14	23	18	22	18	6	1	4	87	45	26	4	5	2	18	12	58	57	67	56	238	75	86	338	
Norwich	117	35	12	24	40	33	41	38	41	42	23	3	1	1	285	60	4	24	5	18	4	104	131	102	137	135	154	127	553		
Old Lyme	3	1	1	1	1	1	1	1	1	1	1	1	1	1	21	6	1	1	—	—	—	2	4	3	7	10	7	3	26		
Old Saybrook	4	3	1	1	1	1	1	1	1	1	1	1	1	1	10	4	1	1	—	—	—	2	4	3	7	10	7	3	26		
Orange	17	6	3	1	1	1	1	1	1	1	1	1	1	1	41	13	5	1	—	—	—	18	18	15	16	16	13	8	5	21	
Oxford	4	5	4	1	1	1	1	1	1	1	1	1	1	1	38	6	1	1	—	—	—	18	18	15	16	16	13	8	5	21	
Plainfield	9	5	4	1	1	1	1	1	1	1	1	1	1	1	38	6	1	1	—	—	—	18	18	15	16	16	13	8	5	21	
Plainville	6	1	2	1	1	1	1	1	1	1	1	1	1	1	26	4	3	1	—	—	—	12	16	6	3	21	3	3	4	13	
Plymouth	5	2	2	1	1	1	1	1	1	1	1	1	1	1	26	4	3	1	—	—	—	12	16	6	3	21	3	3	4	13	
Pondret	3	4	1	3	1	5	1	1	1	1	1	1	1	1	69	4	15	3	1	—	—	3	32	23	23	30	13	8	22	111	
Portland	21	10	9	5	10	5	6	11	8	8	7	2	1	1	1	1	2	1	1	1	12	3	16	14	9	12	15	12	4	8	
Preston	8	2	1	1	1	1	1	1	1	1	1	1	1	1	6	1	1	1	—	—	—	3	25	32	37	37	28	8	1	188	
Prospect	32	14	4	7	6	11	7	11	10	11	8	1	1	1	73	16	6	2	—	—	—	5	25	32	37	37	28	8	1	188	
Putnam	32	14	4	7	6	11	7	11	10	11	8	1	1	1	73	16	6	2	—	—	—	5	25	32	37	37	28	8	1	188	
Redding	2	1	1	1	1	1	1	1	1	1	1	1	1	1	16	5	1	—	—	—	2	6	6	6	8	8	7	4	4	1	
Ridgefield	2	2	1	1	1	1	1	1	1	1	1	1	1	1	16	5	1	—	—	—	2	6	6	6	8	8	7	4	4	1	
Roxbury	1	3	2	1	1	1	1	1	1	1	1	1	1	1	10	2	4	—	—	—	4	4	4	4	4	4	4	4	4	4	24
Salem	1	4	1	1	1	1	1	1	1	1	1	1	1	1	15	1	4	—	—	—	4	4	4	4	4	4	4	4	4	4	10
Saltbury	1	3	6	2	1	1	1	1	1	1	1	1	1	1	24	5	6	1	—	—	—	1	13	4	4	4	4	4	4	4	8
Saybrook	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	3	3	1	—	—	—	5	5	5	6	6	6	6	6	6	28

[illegible]

[illegible]

The “Totals” for the years 1877 to 1884 inclusive, omitted in this set of Tables, will be found in the Annual Report for 1886.

[illegible]

CLASS II.—Constitutional.

ORDER 1. DIATHETIC.

[illegible]

CLASS III.—Local.

ORDER 1. NERVOUS SYSTEM.

[illegible]

ORDER 2. ORGANS OF CIRCULATION.

[illegible]

ORDER 4. DIGESTIVE ORGANS.

[illegible]

ORDER 7. ORGANS OF LOCOMOTION.												
Caries					2	1		3	.02		44	4.4
ORDER 8. INTEGUMENTARY.												
Phlegmon	1							1			51	5.1
Ulcer	1	3	2					6	.05		62	6.2
Skin Disease	2							2	.01		36	3.6
CLASS IV.—Developmental.												
ORDER 1. OF CHILDREN.												
Stillborn	94	162	45	84	21	10	11	6	433	3.72	3648	364.8
Premature Birth	19	54	36	28	6	4	3	6	156	1.34	2534	253.4
Injuries at Birth	2	3	3	1		1	1		11	.09	34	3.4
Cyanosis	2	10	2	2		4	1		21	.17	229	22.9
Spina Bifida	4	2				1	1	1	10	.08	70	7.0
Malformation		4	4	1	1	2	3		15	.12	194	19.4
Infantile Debility	68	80	35	15	18	9	4	2	231	1.99	691	69.1
Atelectasis		11	2	2		2		1	18	.15	50	5.0
Prolapsus Funis											1	.1
Umbilical Hemorrhage	1	6	1	3					11	.09	25	2.5
Teething	8	5	2	13	4	2		1	35	.30	343	34.3
Strophulus				1					1		1	.1
Gangrene of Cord								1	1		1	.1
ORDER 2. OF WOMEN.												
Prematural Labor	7	6	1	2	2		2	1	21	.17	474	47.5
Abortion and Miscarriage	1	4		1	3				9	.08	23	2.3
Placenta Previa	1	2					4		4	.03	6	.6
Puerperal Convulsions		8	3	7				1	17	.13	57	5.7

[illegible]

T A B L E I X .
CAUSES OF DEATH BY MONTHS, AGE AND SEX.

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	With not stated.	DISEASE.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Age not stated.	Male.	Female.	Sex not stated.	TOTAL.
3	2	2		3	1	4	2	4	3	2	1		Abscess			1	2	4	2	4	4	6	3			1	15	11	1		27
			1										Bowels					1											1		1
2			1	1				1		1			Brain	1	1	2	1	1	1								4	2			6
2					1				2		1		Hepatis		1	1			2		2						2	4			6
			1										Lung									1							1		1
				1									Retro Pharyngeal														1				1
1	3		2	1	1			1	1	1	1		Abortion and Miscarriage			1	2	4								2			9		9
	2	1	1		1	1	4		1	1	2	1	Accidents	1	1	1	2	3	3	2			1		1		11	3			14
						1							Addison's Disease					1											1		1
		1											Adherent Pericardium														1				1
				1									Albuminuria					1	1	1	1							3			3
	2		2	5	1	1		3	1	1	1		Anemia	4	2	3	1	1	1	1	1	3				6	10		16		16
					1								Anasarca																1		1
1	1			1	1			3		1			Aneurism	1				1	2	1	1	1					6				6
								1					Aorta						1	2	1						4		1		4
		1											Carotid Artery						1												1
													Heart														1				1
													Stomach							1											1
5	4	1	6	2	5	2	3	1	2		4		Angina Pectoris	1	1				2	4	2	10	11	4			22	12			34
29	33	31	26	23	14	23	26	23	39	35	26	2	Apoplexy	2	1	1	5	15	41	50	91	80	39	4	1		170	159	1		330
2			1	1		1		1		1			Ascites	1						1	3	1	1				3	4			7
1	1				1	1	1				2		Asphyxia	7													5	2			7

4	3	5	3	1	1	3	2	5	2	3	Asthma	6	1		2	1	1	4	8	6	2	1	19	13	32	
	1									1	Asthenia	1				1							2		2	
2	1			3	3	3	3		1		Atalectasis	17											8	9	17	
							1				Atheroma										1		1		1	
		1									Heart									1					1	
1	1	1	1	4	1	4			1		Atrophy	10					1	1	2				10	4	14	
	1			1	1	2				3	Biliary Calculi				1		2			2	1		4	3	7	
										1	Catarrh		1						1					2	2	
											Bilious Fever							1						1	1	
		1	1					1	2		Blood Poisoning		1						2	1	1		4	1	5	
3	3	2	3	5	3	5	4			1	Brain Disease	5	7	1	2		1	4	6	7	8	1	23	19	42	
2	2	2	2			1	2				Fever	3	4	1		1		2					8		12	
19	16	28	19	16	14	21	13	17	21	20	Bright's Disease	1	4	3	6	25	32	34	58	25	14	2	122	107	229	
1											Bronchial Consumption														1	
16	16	19	26	6	11	7	9	10	12	20	Bronchitis	49	21	3	6	5	7	4	14	19	23	11	78	85	163	
6	4	4	4	2	3	4	5	5	3	1	Burns and Scalds	5	21	3	5	3	2	1	2	1	1		20	26	46	
											Buzz Saw				1										1	
2	2	5	7	6	2	2	3	8		6	Cancer, not located				1	1	8	13	16	12	4	1	1	13	44	57
											Arm					1									1	
											Brain									7					1	
4	2	2	1	4	4	5	6	2	3	2	Breast					4	4	12	6	7	3		1	35	36	
											Eye								1						1	
2	1	1	3			1	2	1	4	4	Face					2	3	3	3	8	4		18	5	23	
									2		Foot						1	2					1	2	3	
		1									Hand								1	1					1	
1			1	1	1			1			Intestines					1	2		1	1			2	3	5	
1											Leg									1				1	1	
											Lip														1	
1	3		6	1	1	4	1	1	2	4	Liver					2	4	7	6	3	2		10	14	24	
											Lungs								1						1	
											Maxilla							1	1						1	
											Neck						1						2	1	3	
											Pelvis						1		1				1	1	1	
											Penis									1					1	
											Prostate						1								1	

STATE BOARD OF HEALTH.

TABLE IX--CONTINUED.

DISEASE.												Under 1.												Age not stated.												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TABLE IX—CONTINUED.

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	M'ths not stated.	DISEASE.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Age not stated.	Male.	Female.	Sex not stated.	TOTAL.	
1	2	2	2	2	2	2	1	1	1	1			Hemia	2						2	5	3	2	2	1				8	9	17	
			1										Strangulated									1	1					1	1		2	
1				2	1	1		1	1	2	2		Hip Joint Disease	2		2	2				1		1					4	3	1	8	
				1							1		Homicide				1	1										1	2		3	
1	1			1	1								Hospital Gangrene																1	3	3	
		3	5	2	4	6	3	5	5	2	3		Hydrocephalus	22	15	2		1			1	1	1	1				27	12	1	40	
1	2		2			1		1					Hydrothorax	1		1	1											3	2		5	
											1		Hypertrophy of Head								1										1	
1			3	1	3	2	1	1	1				Heart	1	1	1		1	1	1	2	4	2					8	5		13	
							1						Kidney															1			1	
								1			1		Liver							1		1						2			2	
	1		1										Prostate										1					1			1	
													Imperforate Anus	1														1			1	
								1	1	1	1		Inanition	2	1													3	3		1	
								1					Indigestion																2			2
15	6	29	25	19	12	24	25	8	22	18	13	1	Infantile Convulsions	162	51	3											1	2				216
8	13	20	20	17	15	25	34	21	23	14	16		Debility	216	8	2												110	106			216
3	1	2	2	4	11	134	144	69	14	11	5		Diarrhoea	334	65													137	89			226
													Fever		1													220	178	2		400
2			1		1		1		1		1		Inflammation of Bowels.	1							2	1						5	2			7
1					2	3		2					Brain	1	2	1	1						4	1				2	7			9
													Uterus															1				1
		1	1										Influenza	1							1		1					1	1			2

[illegible]

TABLE IX.—CONTINUED.

DISEASE.	Mths not stated.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Age not stated.	Male.	Female.	Sex not stated.	TOTAL.
Obstruction of Bile duct.			1													1			1
Intestines.		3														12	6		18
Oedema					1		2	5	1	1	5					1			1
of Glottis								1			1					1	1		2
of Lungs		1					1									1			1
Old Age									2	38	165	380	95	3	4	303	384		687
Orchitis									1							1			1
Osteo-sarcoma.																			1
Ovarian Dropsy.										2		1							1
Tumor							1	1	2	3									3
Inflammation.																			10
Ovariectomy																			2
Paralysis	1	1																	1
of Brain					1	1	1	9	16	35	57	78	49	6	5	115	139	5	259
of Heart.		1			1			2	1							2			3
Lungs										2	7	5	1			12	8		20
Paraplegia																			1
Paresis									1							1			1
Parturition							3	2	1	3	4	1				8	6		14
Peripneumonia																	3		3
Perforation of Intestines									1										1
Pericarditis					1	3	2	2	2	1						3	3		6
Peritonitis		9	3	5	20	19	22	14	9	10	7	3				7	6		13
Pernicious Anæmia			1				2	3	2	1						46	75		121
Fever		1		1	2	1		1	1	1	1					5	3		9
																9	4		9

[illegible]

[illegible]

TABLE X.

OCCUPATIONS AND AGES.

OCCUPATIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Accountant			1									1		1			1	1
Actor													1				1	1
Actresses																	1	1
Agents			1			1						2	8	6	11	11	10	3
Architects															2			
Army Officer																	1	
Artists		2		2		1						5		3	2		4	1
Athlete														1				
Attorney													1					
Author.								1				1						
Authoress																	1	
Auctioneers					1							1						
Axle Maker								1				1		1				
Bag Cutter														1				
Baggage Masters													1	3			1	
Bakers		1	1		4		1					7	3	10	7	3	4	5
Ball Player														1				
Bankers	1				1	2	1	1				6	3	7	4	1	4	1
Barbers	1	2			1	1						5	14	12	9	6	3	1
Bar Tenders		3	4		1							8	8	2	2		3	3
Basket Makers					1							1	1	2	1	2	2	
Beef Dresser													1					
Belt Makers				1								1						
Bill Posters				1		1						2			3			
Blacksmiths		3	8	5	5	11	10	4				46	42	36	54	28	37	35
Boat Builders					1							1	1		3			
Boatmen		1	1									2	1	2	9	4		
Boiler Makers				2								2	2		1			
Bolt Makers													2					
Bookbinders							1					1	3	1	2	2	4	1
Book-keepers		5	5	4	2							16	16	17	25	14	11	6
Book Sewer														1				
Shaper														1				
Boot Makers	1	1					1	1				4		2				
Bottlers													3	1				
Box Makers															2			
Brakemen		6	2	1								9	15	14	18	4	9	3
Brass-dipper														1				
Finishers				1								1	1	1				
Founders													3		3	1	5	1
Moulders													3	4				
Rollers														2				
Turners			1									1	1	1				
Worker	1											1						
Brewers			1									1	1	2			2	2
Brick Layer			1	2								3	1					
Makers		1										1	1	1	2	2	5	1
Bridge Builders																	1	1
Brokers								1				1	3	2	3	2	2	4
Brush Maker													1					
Buffers	1	1		2	1							5	2	1				

TABLE X—CONTINUED.

OCCUPATIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Builders	—	—	1	—	—	1	4	3	—	—	—	9	3	—	—	3	—	—
Burnishers	—	4	1	—	—	1	—	—	—	—	—	6	7	3	8	—	1	4
Butchers	—	1	3	1	5	3	2	1	—	—	—	16	16	12	25	9	13	9
Butler	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Button Maker	1	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—
Cabinet Makers	—	—	—	—	—	—	2	2	—	—	—	4	6	5	6	3	5	1
Capitalists	—	—	—	—	—	1	—	1	—	—	—	2	—	—	—	—	—	—
Cards	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	—	—	—
Card Coverer	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Car Driver	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Carmen	—	—	1	1	1	1	1	—	—	—	—	5	3	2	—	2	1	1
Car Maker	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Carpenters	1	5	10	7	15	16	18	8	—	—	—	80	65	83	78	60	60	65
Carpet Weavers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1
Carriage Blacksmiths	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—
Makers	—	—	2	1	—	—	2	1	—	—	—	8	10	17	8	8	13	1
Painters	—	—	—	—	—	1	—	—	—	—	—	1	2	1	7	—	2	4
Trimmers	—	1	—	—	2	—	—	—	—	—	—	3	1	3	—	—	—	—
Carrier	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—
Cartridge Workers	1	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—	—
Carvers	—	—	—	—	—	—	—	—	—	—	—	1	1	2	—	—	2	1
Cashiers	—	—	1	—	—	—	—	—	—	—	—	1	2	1	2	—	1	1
Caterers	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Cattle Dealer	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Caulkers	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	3	1
Chemist	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Chief of Police	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Cigar Dealers	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Makers	—	2	2	1	1	—	—	—	—	—	—	6	5	6	6	5	4	5
Packer	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
City Clerk	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Civil Engineers	—	—	—	—	1	—	—	—	—	—	—	1	—	3	3	1	—	—
Clergymen	—	—	1	3	—	4	3	4	—	—	—	15	21	24	29	18	23	21
Clerks	2	22	9	11	5	5	1	—	—	—	—	55	67	46	63	32	66	34
Clock Makers	—	—	—	—	—	—	—	—	—	—	—	—	2	3	5	1	6	—
Cloth Finishers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2
Coach Lace Maker	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Coachmen	—	—	1	2	2	—	1	—	—	—	—	6	5	5	4	7	2	1
Coal Dealers	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	2	—
Heaver	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—
Collar Maker	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Collector	—	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—
Colliers	—	—	—	—	1	—	—	—	—	—	—	1	—	1	3	—	1	2
Comb Makers	—	—	—	—	—	—	—	1	—	—	—	1	1	—	1	—	—	—
Commercial Travelers	1	—	—	1	—	—	1	—	—	—	—	3	3	3	4	4	5	1
Compositors	—	2	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—
Concrete Walk Build.	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Conductors	1	1	1	—	2	1	—	—	—	—	—	6	1	3	1	1	2	1
Confectioners	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	1	1	—
Contractors	—	—	—	—	1	2	—	—	—	—	—	3	1	6	3	2	3	3
Conveyancer	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Cooks	—	2	3	2	1	—	1	—	—	—	—	9	6	6	13	18	8	1
Coopers	—	—	1	—	1	—	—	—	—	—	—	2	3	8	5	2	2	5
Coppersmith	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Copper Worker	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—

TABLE X—CONTINUED.

OCCUPATIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Corset Makers	1											1	5	2	3		5	
Costumers							1					1						
Cutlers					2	1						3	8	3	7	6	6	
Cutter			1	1	2							4						
Dentists				1			2					3	6		3	4	4	2
Depot Masters															1		1	1
Deputy Sheriff																	1	
Die Sinkers														2	1	3	2	
Dippers														3				
Distillers														1	1			
Division Masters	1													2				
Domestics	10	19	8	9	13	18	20	13	2			112	106	60	47	39	61	68
Draughtsmen	1			1								2		1			1	
Dressmakers	2		2	6	6			1				19	21	19	14	12	17	10
Driver		2										2						
Drover		1										1						
Druggists		3	1	1			1					6	5	5	12	2	4	3
Dyers		1		1					1			3	7	7	7	4	2	3
Editors					1							1	1	1		1	2	
Electro-plater													1					
Electrician				1								1	1					
Engineers		1	2	3	3	2	2					13	16	13	20	4	16	7
Engravers			2		1							3	1	1	1	5	2	1
Express Agent		1										1						
Expressman				1								1	9	4	2		8	6
Factory Girls														9				
Hands	1	2	5	7	1	1	1					18	24	12				
Farmers	15	33	26	35	87	138	199	145	32	2		712	763	694	697	768	789	678
File Cutters				1								1					2	
Financier														1				
Firemen	1											1	2	2	1	1	2	
Fish Dealers													2					
Fishermen			1	1	3		2					7	4	6	6		8	3
Flagmen													1					
Florists														1	2			
Foremen				1	2	1						4	3	1	8		3	1
Forewoman															1			
Forger						1						1						
Fur Dressers															1		1	1
Furniture Dealer													1					
Furrier	1	1										2	1					
Galvanizer								1				1			1			
Gardeners		1	1	1	3	4	6					16	12	13	10	3	4	3
Gas Makers															1		2	
Glass Blowers																	3	
Cutters			1	1								2	1	1				
Workers													2					
Glove Cutters															2	4	2	
Gold Platers																	2	
Grinders		2	1	2	2							7	8	10	7	5	2	
Grocers		1			2	2	1					6	3	7	6	7	3	2
Gunsmiths			1		1	1	1					4	1		4		4	2
Hackmen			1		1							2	2	1	2		2	1
Hairdresser						1						1		1				
Harness Makers				1	2	1	2					6	12	3	6	7	7	2

TABLE X—CONTINUED.

OCCUPA- TIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Hatters		8	6	4	2	5		2				27	29	18	19	28	50	45
Hat Trimmers		1		1								2	4	1				
Horse Dealers					1	2	2					5	1	1				
Jockey														1				
Hose Makers																	4	
Hostlers		4	1	1	3	2		1				12	5	7	4	2	4	
Hotel Clerk			1									1						
Hotel Keepers		1	3	2	3	3		1				13	9	13	11	10	15	8
Housekeepers	4	86	121	129	119	164	150	115	27			955	791	869	238	32	219	459
Housewives	10	55	77	80	101	117	127	71	15			653	811	820	1426	1582	1498	1256
Ice Dealers			1		2							3	1				2	1
Inspectors																	4	
Insurance Ag'ts				2	1	1						4	7	5	2		5	
Inventors			1			4	1					6		1	2			
Iron Worker													1					
Intellig'ce Office				1								1						
Janitors		1	1	1	1	1	1					6	1	5	1			
Japanners							1					1				3	1	
Jewelers				2				1				3	3	2	4	4	3	2
Joiners			2	3	3	2	1					11	12	12	19	1	11	4
Journalists						1						1				5		
Journeyman													3		7		11	2
Judges			1									1		1				
Knife Makers		1			1							2	3	2				
Knitter					1							1						
Laborers	23	73	75	73	68	90	50	24	5			481	501	527	536	545	511	396
Landlords			1		3							4						
Lathers														2				
Laundryman			1									1						
Laundresses														3	2	2		
Lawyers		2		1	1	2	2	1	1			10	8	12	15	7	10	12
Librarian						1						1						
Lighterman																		1
Linemen			1									1	1					
Liquor Dealers			2									2	5	3	4		4	2
Liverymen		1	1	2	1							5	3	3	6	3	5	3
Locksmiths	1		1									2	2		8	7	8	1
Lumber Dealers		1						1				2	1	3				
Lumbermen								1				1	2	4	1			
Machinists	3	10	5	6	7	7	2	2				42	59	46	52	20	31	9
Mail Carriers		1										1			1		1	
Manufacturers			1	2	3	12	4	3	1			26	33	30	27	28	34	35
Marble Workers								1				1	1					
Mariners	1	1		2	4	1	3					12			27		24	38
Marketmen													1	1				
Masons			6	8	8	6	4	4	1			37	42	24	45		22	13
Match Maker															1			
Mechanics	10	25	20	21	14	17	19	5	1			132	160	191	195	318	325	125
Mercantile Ag't				1								1						
Merchants	1	8	13	15	21	27	16	13				114	99	114	148	131	147	83
Metal Spinner														1				
Turner													1					
Midwife														1				
Milk Dealers			1	1								2	1	3	2			
Millers			1	1	2	1	1					6	4	7	11	5	6	5

TABLE X—CONTINUED.

OCCUPATIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Mill Hands	14	30	12	6	7	5	2	3				79	67	88				
Milliners		1						1				2	4	2	4	5	6	2
Millwrights					1							1	2	2				
Miners	1			1	2		1					5		3	3		5	8
Missionary													1					
Moulders	1	9	4	6	9	4	4	1				38	29	27	41	28	24	6
Music Dealers													3	6	6		5	
Musicians		2	1				1					4	1					
Nailers				1								1	1					
Naval Officers			1									1	1	1				
Needle Maker													1					
News Dealers							1					1	1	1				
Nurses	1	3	1		1	5	2	1	1			15	16	18	14	13	15	2
Nurserymen														1	1	1	3	1
Officer in Jail													1					
Operatives	17	25	6	1	4	4	8	2				67	36	13	130	183	143	102
Opticians														3				
Organ-grinders																	2	
Overseers					1							1	2	1	1	1	2	
Oyster Dealers													5					
Oystermen	1	1		1		1	1					5	7	4	6	2	3	1
Oyster Openers													2					
Packers	2			1								3		2	1	1		
Painters		4	12	10	9	6	4	1				46	53	44	40	28	39	21
Paper Hanger																	1	
Makers		1	1			2	2					6	2	8	6	2	6	1
Paper-box Makers															3			
Pattern Makers				1		1						2	1	2	3	3	2	
Paupers					3	2	5	4				14	11	8	6	11	6	6
Peddlers		2	1		1	3	2					9	11	5	10	7	3	3
Photographers						1						1	2				1	
Physicians			2	6	4	5	9	1				27	16	21	19	16	25	24
Piano Tuner														1				
Pilots			1		1							2	1	3	1	1	2	
Pistol Makers		2										2		1				
Plane Maker													1					
Plasterers		1										1		1				
Platers				1								1			3	1		
Plumbers		3		1	1	2						7	4	8	7	5	3	1
Policemen													1	1	1	3	3	1
Polishers	1	3	3	1	2	3						13	3	5	8	3	11	2
Porters			1			1						2	4	1				
Post Masters							1					1			4	2		2
Potters		1										1	2	1				
Poulterer													1					
Powder Maker														1				
Pressman														1				
Priests					1		1					2		1	2			
Printers		1	1	1	2	2	1					8	14	12		8	10	4
Prisoners		9	4	1	1	1						16	10		2	4		4
Professors													1	3				
Prostitute			1									1						
Provision Dealer													1					
Public Officers														2	1			
Publishers														3	1		1	1

TABLE X—CONTINUED.

OCCUPATIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Quarrymen		1		3	3	1		1				9	10	12	19	16	6	10
Rag Sorters		1		1								2	1					
Railroad Builders																		
Hands		3	1	1								5	4	4	14	7	8	10
Ticket Agents			1									1		4				
Real Estate Agents						2	1					3	1					
Reporters													1	1				
Restaurant Keepers			1									1	1	1	1		1	1
Retired						2	5	1				8						
Retired Merchants						1	5	2				8	9	15	6	11	6	1
Riggers													2	2				
Rope Makers													1				2	
Rubber Workers	2	2			3		1					8	2	4	3			
Saddlers						2						2	3		1		4	
Sail Makers														2		2	4	
Salesmen		1	1	1	3	2						8	6	4	1		3	4
Saloon Keepers		8	7	4	3	1						23	18	18	19	21	19	5
Saw Makers																	2	
Sawyers													3	4	2	2		
Scythe Makers															1		1	1
Sea Captains					1	1	1	2	1			6	7	6	4	4	2	5
Seamen	1	1	4	5		3	3	5	2			24	34	37	21	29	16	7
Seamstresses		1		2		1	2					6	9	6	12	10	8	7
Secretary														1				
Servants	3	2	2	1	2							10	16	7	32	33	84	27
Sextons													2				1	1
Shear Makers						1						1		1			2	1
Shepherd													1					
Ship Builders							1		1			2	2	1	5	4	2	3
Carpenters					2	1	1	3				7	3	3	4			
Shipping Clerks		1		1		1						3	2					
Shirt Cutter													1					
Shirt Manufacturers				1		1						2						
Shoe Dealers																		
Makers		1	5	3	5	8	11	4	2			39	43	56	49	36	58	27
Shop Girls	1	5										6	3	11	6			
Silk Finishers													1			1	1	
Silver Platers													2	2				
Silversmiths			1	1								2	2	1				
Sisters of Charity													2		1		1	1
Soap Makers							2					2		2				
Soda Water Maker													1					
Solderers		1										1	1					
Soldiers				1		2						3	1	1	2	2		2
Speculators																	3	1
Spinners		1	1									2	2		6		4	1
Spoon Maker														1				
Spring Makers													1		2			
Stage Drivers						1		1				2	3	2	2		2	1
Station Agents													1	1		1	1	1
Stamper														1				
Steam Fitters		1		1								2						
Stevedores														1	1			
Stewards	1											1	1	1				
Stone Cutters		3	3	4	2	1	2					15	15	19	14	10	15	3

TABLE X—(CONTINUED).

OCCUPATIONS.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Not stated.	Total, 1886.	Total, 1885.	Total, 1884.	Total, 1883.	Total, 1882.	Total, 1881.	Total, 1880.
Stove Makers			1									1	6					
Merchant													1					
Straw Hatter						1						1	1					
Students	25	5										31	24	14	14	12	20	13
Superintendents			1	1		1						3	5	3	2		2	3
Surveyors							1					2		1	1		1	
Switchmen														1	1	1	2	1
Tailors			2		4	7	6	3				25	15	26	25	8	16	8
Tailoresses													1	2	5	7	4	2
Tanners				2								2	3	3	2	1	5	5
Tax Collector															1			
Teachers	2	7	3	3	3		1					19	32	20	18	29	28	26
Teamsters	2		1	3	3	1	4					14	14	26	21	17	22	3
Telegraph Lineman														1				
Operator																		
Telephone Operators		1										1	1	1	5	2	1	1
Thread Packer														1				
Tile Cutter														1				
Tinkers																	2	1
Tinners				1	1					1		3	10	6	7	10	11	10
Tobacconists					1							1	1	1				
Tool Maker								1				1	2	3	4	2	2	
Trader								1				1						
Track Master, R. R.													1					
Tramps													3			2	3	
Traveling Salesmen													3					
Treasurers							1					1		1				
Trimmers															4			
Trunk Maker								1				1						
Tuners															1	2		
Turners													1				5	4
Type Maker															1			
Umbrella Mender															1			
Undertakers		1	1			1						3	4	4	3		3	2
Upholsterers													2	2		1	1	1
Varnishers	1		1			1						3	1					
Venders			1									1	1	1				
Veterinary Surgeons				1	1							2	1					
Wagon Makers							1					1	3					
Waiters			3		1							4	5	6	9		6	
Warden State Prison													1					
Washwomen				2	1	2						5		2		1	9	1
Watchmen			2	1	1	2						6	8	8	7		6	2
Watch Makers			2		1							3	1					
Weavers	2	6	5	3		3	3	1				23	21	24	29	18	24	3
Well-digger															1			
Whalers																	1	1
Wheelwrights					1		3	1	1			6	4	2	3	2	2	
Whitewashers													1		1			
Wire-workers		1	1	1								3	3	3	5	1	3	
Wood-choppers		1										1	1					
Wood-turners		1		1			1					3	1	1		6		
Wool-carvers			1									1					2	1
Wool-sorters		1										1		2	2	3		
Writing Master													1					

TABLE XI.

DEATHS FROM MALARIAL* FEVERS IN EACH TOWN, BY COUNTIES, CONTRASTED WITH THOSE FROM TYPHOID FEVER FOR A SERIES OF YEARS.

TOWNS.	1886.			1885.			1884.			1883.			1882.			1881.			1880.			1879.			1878.			1877.			Typhoid Fever.					
	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.						
HARTFORD	50,000	7	7	21	9	1	21	11	28	3	14	12	4	18	30	12	6	27	24	2	13	3	12	11	2	3	22	22	26	35	14	29	33			
Avon	1,075			1			1				1				1															1	3	1	5			
Berlin	2,500			2				4		2	1			4																1		2				
Bloomfield	1,350						1																							1		2				
Bristol	6,500																													2	1	3	2			
Burlington	1,200		1				1	1	4	4	5	3	1	3	7			7	2	1	4		3	1	1		3		4	15	4	9	6	8		
Canton	2,300			4			4					2																	2		2		3	1		
East Granby	754																												4		1	2	1	2		
East Hartford	4,000			1																																
East Windsor	3,100						1			1	3	2	3	2	3	2	11	5			2									1	3	1	2	2		
Enfield	7,000			3			5					3	1	1	2			2	1		1									1	1	3	4	2		
Farmington	3,400		1							4	8	1	1	8			2	19			1	4	2							2	5	2	2	3	5	
Glastonbury	3,800		1				7			1	3		1	2			3	2			3		2							2	3	5		1		
Granby	1,500										1	5	1	1			1				1									1	3	4	12	3	3	
Hardland	600																														1	2	2	2	2	
Manchester	7,200		3	1	5	1				2	1	3	4		2	2		5	6	1	12	5	1	5	1							1	2	1	2	2
Marlborough	400																																			
New Britain	18,000			4		3	4																													
Newington	950																																			
Plainville	2,300																																			
Rocky Hill	1,100																																			
Simsbury	1,800			2																																

* Malarial is used for all the varieties—Intermittent, Congestive, etc., except Typho-Malarial.

Southington	5,500	4	3	1		1	1	1	2		2	2	1	4	3	2	6		1	3	12	1	3	8
South Windsor	1,850	1	1	1		1	1	1							2	2				2	3	1	1	1
Suffield	3,225	1	3	1	1	1	4	1			3	4		3	2			1	5	3	1	6	5	
West Hartford	1,875		2						1	2				1						1	2	2	2	
Wethersfield	2,200			1			1			2	1			1	1	3	1		1	2	1	4	6	
Windsor	3,050	1	1	1						1		1			1				3	1	1	3	1	
Windsor Locks	2,600			1	2		1	2				1					1	1		5	1	1	1	
NEW HAVEN	80,000	6	25	13	10	8	42	28	11	33	20	16	24	30	14	28	13	27	18	17	15	23	37	47
Beacon Falls	450																		6	13	1	17	15	23
Bethany	640	1			1										1						2	2	1	
Branford	3,400	1	1		1					5					1	1		4	1		1	1	2	
Cheshire	2,200	1				1	2			1	3	1			1	1	3			2	3	5	1	3
Derby	15,500	1	1	4	3	5	7	2	9	5	2	2	7	1	4	2	1	1	1	1	2	3	4	3
East Haven	800		2									1	2	3	3					2	2	1	1	3
Guilford	2,800	1		1		1				1	1	1				1	1	1	3	1	1	3	1	2
Hamden	3,650	1	1	2	2	1	1	2	1							1	12	1	3	2		2	2	
Madison	1,650	1				2	2			1					1	2	1	3			1	1	2	
Meriden	22,000	3	2	6	2	9	8	4		8	7	7	9	1	11	14	2	7	5	2	4	5	4	2
Middlebury	687						1			1					2	1	2	1	3					
Milford	3,500	1	1			1	1			1	1	1			1	2	2	1	1		1	1	1	1
Naugatuck	6,000	1			4	1	1			5			14		1	2	2	1	1		3	5	3	6
North Branford	950	2	1		1	1				1				1	1	1	3	3	1		4	4	3	6
North Haven	1,775	2	1	1	1	2	1			1	1			4	1			1	1	1	1	4	1	1
Orange	3,800	1	3	1	1	2			4	1	1	6			2	1	1	1	2		2	4		
Oxford	1,200	1	1							1	1					2	1	1	1	2	2	1	2	
Prospect	500	2																						
Seymour	2,900	1																		1		1		
Southbury	1,800		1						1	1	1	2		5		2		3			2			
Wallingford	5,500	1	1	3	4	2	5	1		2	2	4	3	1	2	4	2		5	1	1	4	1	6
Waterbury	30,000	1	19	1	13	7	1	20	4	41	2	3	13		1	8		2	5	1	5	17	16	18
Wolcott	510	2													1	1		1		3	1	3		
Woodbridge	825		1						1				1								1	2	1	2

TABLE XI—CONTINUED.

TOWNS.	Estimated Population.	1886.		1885.		1884.		1883.		1882.		1881.		1880.		1879.		1878.		1877.		Typhoid Fever.	
		Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.	Typho-Mal.	Typhoid.	Malarial.
NEW LONDON	15,000	1	5	1	2	5	1	2	1	3	1	5	4	4	6	2	3	7	6	3	6	1872.	
Bozrah	1,150							1		1												1873.	
Colchester	2,850	1						4		5		3	1	1	2	1	1	1	2	2	4	2	
East Lyme	1,730				2			1		1				2									
Franklin	600																						
Griswold	3,000	1	2	1				1	2		3	1	3	3	5					2	3	4	1
Groton	5,150	1	1	2	3					4		3	5	5	1	1	1	1	3	6	1	3	5
Lebanon	1,750	1					2			1	1	2	2	1	1	1	1	1	1	1	2	1	3
Ledyard	1,050							1															
Lisbon	500											2	1	1						1			
Lyme	1,000																						
Montville	2,700	1								1		3		2	1	1	1	1			3	2	
Norwich	25,000	5	2	13				1	12	1	1	12	1	4	6	1	5	12	14	11	12	16	12
North Stonington	1,775																						
Old Lyme	1,400	1						2	1	2		1	2	2	1			1	1	1	4		
Preston	2,600																						
Salem	550							1	1		1	1	1	1	1	1	1	1	1	2	1	1	
Sprague	3,300	1								2													
Stonington	7,500	1						1	1	1		1		1	6	1	1	1	3	4	3	4	1
Voluntown	1,250	1						1	1	1				1	5	1	5	1	3	1	3	4	1
Waterford	3,000	1			1							1								1	2	3	
DANBURY	17,500	10	1									3	4	3	1	5	4	1	1	1	1	2	2
Bridgeport	40,000	2	4		9	6	12	5	3	11	5	8	13	4	3	10	4	9	5	7	5	10	6
Bethel	3,442	3						1		1		1	2	1	1	1	1	1	2	2	1	1	

[illegible]

[illegible]

TABLE XII.

VITAL STATISTICS OF THE COLORED POPULATION BY COUNTIES.

COUNTIES.	Estimated Population.	BIRTHS.										MARRIAGES.										DEATHS.																																							
		Male.					Female.					Sex not stated.					Total, 1886.					Male.					Female.					Sex not stated.					Total, 1886.					Male.					Female.					Sex not stated.					Total, 1886.				
		1885.	1884.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	Average.	1886.	1885.	1884.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	Average.	1886.	1885.	1884.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	Average.	1886.	1885.	1884.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	Average.													
Hartford	141,145	32	29	1	62	57	52	47	73	65	55	59	46	63	56	57.7	32	28	12	18	16	3	21	18	23	21	18.5	26	24	..	50	62	58	56	59	64	56	54	57	23	24	51.6																			
New Haven	193,040	44	52	2	98	75	111	92	88	72	74	60	70	46	63	77.2	51	36	43	52	42	5	4	38	30	25	33	32.6	55	61	1	117	67	101	110	83	104	65	79	13	87	82.3																			
New London	80,856	11	11	4	26	32	31	40	38	30	32	39	22	17	29	30.5	20	22	8	15	11	6	8	13	11	15	13.2	15	13	..	28	30	48	47	39	35	37	23	30	30	11	32.5																			
Fairfield	138,260	30	25	..	55	41	46	55	39	39	60	41	42	49	46	46.6	18	18	16	18	12	15	3	8	3	23	19	13.9	31	35	..	66	52	53	41	45	52	53	23	42	42	20	43.7																		
Windham	45,700	6	8	..	14	10	9	9	7	13	7	22	11	8	12	11.1	4	4	..	6	3	12	2	2	6	2	6	3.4	7	3	..	10	14	19	11	..	9	7	20	7	6	7	10.0																		
Litchfield	54,777	9	6	..	15	21	15	18	23	23	17	16	16	28	11	18.5	5	8	4	8	4	4	4	5	4	5	6	5.2	9	6	..	15	13	9	16	16	17	18	9	11	15	23	14.8																		
Middlesex	36,354	3	1	..	4	10	12	8	6	7	4	6	9	7	5	7.1	3	..	2	4	5	1	3	1	3	5	5	3.0	2	5	..	7	6	12	12	6	6	8	10	5	20	9.1																			
Tolland	25,197	3	3	..	6	4	4	3	9	6	5	4	5	8	1	5.0	6	2	..	2	3	1	2	..	2	2	2	..	1	1	3	6	3	6	1	7	3	4	1	2	3.3																		
Total	715,329	138	135	7	280	250	280	272	283	255	254	247	221	226	223	248.7	133	118	85	117	98	70	27	63	79	96	107	86.8	146	147	1	1,291	247	306	296	254	288	251	219	240	140	194	247.3																		

NOTE.—In addition to the above there were in 1885 six (6) mixed marriages.

BIRTHS.

There were recorded during the year 1886 in the State of Connecticut 15,934 births, of which 8201 were registered as males, and 7608 as females, while of 125 the sex was not stated. Of the sexes given, the proportion of boys to girls is 107.8 boys to 100 girls.

The proportion of births to the whole estimated population of the State (viz : 715,329) is 1 to 46.15 of the people or 22.27 per 1000.

The highest recorded birth-rate was in Beacon Falls being 57.7 per 1000. And it well illustrates the energy and enterprise of that little town ; although there is small doubt that its envious neighbors will say that as it is the smallest town of the State save one, this exceptionally high birth-rate was accidental, and that they cannot do it again.

Among the towns in which are boroughs and cities the highest birth-rate was in Derby, 31.8 per 1000. The smallest birth-rate in towns of 5000 population and upwards was in Groton, 16.3. Although the registration of births throughout the State is more imperfect than of any other item of vital statistics by reason of inherent difficulties which are insuperable obstacles to perfection, yet there are reasons for the suspicion that the records of vital statistics are more defective in Groton than in most other towns. The Secretary has trustworthy information that the observance of the laws by the physicians in making returns of births is discouraged by the town authorities of Groton, and that another and cheaper method than that directed in the statute has been adopted. It is possible therefore that the birth-rate of Groton is very much higher than 16.3, the low figures being due to imperfect registration, so that the town may suffer from misrepresentation as to its prosperity as the result of a pitiful and parsimonious attempt to save a few dollars.

The greatest number of births in the State occurred in August, 1427, and the smallest number in April when there were only 1223.

The largest number of males were born in August, viz : 753, but the largest number of females were born in October, viz : 679.

The birth-rate throughout the State during the whole year of 1886 was only 22.2 to the 1000 of population.

In the 1st quarter of the year the birth-rate was 21.51 per 1000.

"	2d	"	"	"	"	21.46	"	"
"	3d	"	"	"	"	23.72	"	"
"	4th	"	"	"	"	22.26	"	"

In Hartford County the town having the highest birth-rate was New Britain, 29.3 ; the lowest birth-rate was Rocky Hill, 9.0. In New Haven County the highest birth-rate was Beacon Falls, 57.7 ; and the lowest Oxford, 10.8. In New London County, the highest birth-rate was in Voluntown, 27.2, and the lowest Franklin and Lyme exactly 10.0 each ; in Fairfield County the highest birth-rate was Stamford, 27.3 ; the lowest Monroe, 4.8 ; in Windham County, the highest birth-rate was in Putnam 27.3, and the lowest in Woodstock, 8. In Litchfield County the highest birth-rate was Thomaston, 26.8, and the lowest Norfolk, 5.3 ; in Middlesex County, the highest birth-rate was Middlefield, 31.1, and the lowest Killingworth, 8.5 ; in Tolland County the highest birth-rate was Somers, 29.7, and the lowest Willington, 9.5.

The county having the highest registered birth-rate was New Haven, 25.62. New Haven County had also the greatest natural increase of population by excess of births over deaths, it being 12.8 to the 1000.

Litchfield County had the lowest registered birth-rate, 17.14.

Table showing illegitimate births by months:

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Not stated.	Total.
Males.....	4	5	---	4	3	5	9	7	4	6	4	11	9	71
Females.....	6	5	2	7	8	4	9	5	5	7	6	4	9	77
Sex not stated.....	---	---	---	1	---	---	---	---	---	---	2	---	---	3
Total.....	10	10	2	12	11	9	18	12	9	13	12	15	18	151

Table showing twin-births by months :

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Not stated.	Total.
Males.....	13	4	12	12	8	4	12	16	14	3	8	13	10	129
Females.....	11	8	10	10	16	4	12	2	10	7	8	7	6	111
Sex not stated.....	---	---	---	---	---	---	---	---	---	---	2	---	---	2
Triplets { Male.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---
{ Female.....	---	---	3	---	---	---	---	---	---	---	---	---	---	3
Total.....	24	12	25	22	24	8	24	18	24	10	18	20	16	245

The following table shows the number of Twins and Illegitimate Births by Counties for the past ten years, with the sexes for 1886.

COUNTIES.	1886.						1885.		1884.		1883.		1882.		1881.		1880.		1879.		1878.		1877.		TOTAL FOR 10 YEARS.		AVERAGE FOR 10 YEARS.							
	TWINS.						ILLEGITIMATE.						1885.		1884.		1883.		1882.		1881.		1880.		1879.		1878.		1877.		TOTAL FOR 10 YEARS.		AVERAGE FOR 10 YEARS.	
	Males.	Females.	Sex not stat'd.	Total.	Males.	Females.	Sex not stat'd.	Total.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.	Twins.	Illegitimate.				
Hartford ----	33	31	--	64	19	23	--	42	55	38	45	34	38	42	65	52	45	33	29	34	32	44	34	36	20	38	412	393	41.2	39.3				
New Haven --	35	39	2	76	22	22	--	44	68	33	86	47	130	39	68	39	40	41	28	35	40	16	30	25	36	47	599	395	59.9	39.5				
New London --	15	9	--	24	10	14	--	24	35	23	45	29	48	30	24	21	16	18	22	23	10	16	8	17	16	10	245	211	24.5	21.1				
Fairfield ---	14	12	--	26	13	9	--	22	51	21	55	29	43	30	54	32	18	30	28	23	24	28	28	23	25	24	350	262	35.0	26.2				
Windham ---	10	6	--	16	1	3	--	4	12	7	15	7	18	13	16	11	44	13	13	14	13	8	12	11	9	17	168	105	16.8	10.5				
Litchfield ---	8	8	--	16	2	4	3	9	20	12	24	3	32	9	24	7	12	6	9	8	17	7	14	10	12	15	176	86	17.6	8.6				
Middlesex ---	3	*6	--	9	4	--	--	4	16	8	18	9	16	13	20	6	16	3	3	3	9	6	7	4	3	3	117	59	11.7	5.9				
Tolland ----	11	3	--	14	--	2	--	2	16	9	12	5	8	4	10	3	4	8	4	6	9	6	3	2	6	1	86	46	8.6	4.6				
Total -----	129	114	2	245	71	77	3	151	273	151	300	163	333	180	281	171	185	152	134	146	154	160	136	128	127	155	2153	1557	215.3	155.7				

* Including triplets.

† Each includes one set of triplets.

‡ Includes two sets of triplets.

The following table shows the number of children born of American and foreign-born parents, and percentages to the whole number of births for the past nine years :

Years.	American Parents.	Per cent.	Foreign Parents.	Per cent.	Foreign American.	Per cent.	Not Stated.	Per cent.
1886 -----	7,441	46.4	5,510	34.4	2,590	16.1	495	3.1
1885 -----	7,245	46.7	5,023	32.4	2,660	17.2	568	3.7
1884 -----	7,401	47.	5,395	34.3	2,689	17.1	240	1.5
1883 -----	7,216	45.5	6,110	38.5	2,198	13.9	332	2.1
1882 -----	7,142	49.	5,430	36.	2,105	14.	260	1.
1881 -----	6,734	46.	5,229	35.7	1,737	12.	916	6.3
1880 -----	6,585	47.	5,101	37.	1,656	12.5	478	3.5
1879 -----	6,672	47.	4,848	34.6	1,748	13.	783	5.4
1878 -----	6,150	45.	5,704	41.	1,289	9.	356	5.
Total ---	47,900		37,817		13,422		3,374	

BIRTH-RATE BY COUNTIES.

COUNTIES.	YEARS.							
	1886.	1885.	1884.	1883.	1882.	1881.	1880.	1879.
Hartford -----	23.1	24.31	23.6	26.8	23.9	23.1	22.2	23.5
New Haven -----	25.6	25.73	27.2	31.7	28.8	27.8	24.6	25.8
New London -----	19.8	20.41	21.2	21.6	21.3	21.5	21.1	20.1
Fairfield -----	21.9	21.96	20.9	24.9	23.8	22.0	20.8	19.1
Windham -----	20.9	21.11	20.3	26.1	24.6	23.9	25.4	25.0
Litchfield -----	17.1	17.49	18.9	20.1	18.2	19.8	19.6	19.7
Middlesex -----	19.4	20.41	21.5	19.3	19.0	19.7	18.8	20.2
Tolland -----	18.5	18.03	20.2	19.4	20.0	21.8	19.7	21.4
State of Connecticut ---	22.2	22.66	23.5	25.4	23.9	22.4	22.2	22.4

TABLE SHOWING A NATIONALITY OF PARENTS BY COUNTIES.

COUNTIES.	American.	Irish.	English.	German.	Canadian.	Scotch.	Welsh.	French.	Spanish.	Italian.	Swiss.	Austrian.	Belgian.	Hungarian.	Prussian.	Bohemian.	Danish.	Swedish.	Polish.	Norwegian.	Finland.	Russian.	Portuguese.	Newfoundland.	American and Foreign.	Mixed Foreign.	Foreign, not stated.	Not stated.	
Hartford	1439	506	67	208	85	5		5		30	4				1		21	60							662	125	44	113	
New Haven	1921	811	106	434	102	29	7	33		59	9	3		2			7	55	12	3		51			822	180		310	
New London	851	171	35	48	199	24			2								2	9				1	15		206	40		1	
Fairfield	1584	428	66	222	6	15		1	18	1	2	2	12			6	7	49	2	7					462	97		54	
Windham	388	52	11	2	336	1												11							128	15		3	
Litchfield	580	95	25	35	26	12		5	2	2	1							8	1			1			123	13		10	
Middlesex	422	51	5	23	7			1	1	1	2			1	1		1	67		1					105	17		1	
Tolland	256	26	8	56	20	1					3						2	1							82	10		3	
Total, 1886	7441	2140	323	1028	781	87	7	45	112	19	8			15	2	6	40	260	15	11		55	15		2590	497	44	495	
Total, 1885	7245	1773	350	985	744	74	2	15	1	78	16	7	2	14	3	7	30	237	17	5	2	31	17		2206	415		493	
Total, 1884	7326	2729	377	958	714	72	8	25		99	11	3		5			22	186	6	11		41	8		32130	458	30	263	
Total, 1883	7219	3035	362	899	798	66	6	62	48	20	8	1					17	207	6	4		47	13		2179	434	65	335	
Total, 1882	7142	2682	336	877	693	43		34	29	6							6	129				9			2105	502			
Total, 1881	6734	2901	316	853	707	44		17	13	12							5	79							1737	328			
Total, 1880	6585	2682	303	600	794	41		9	24	4							13	55							1678	434			

MARRIAGES.

There were 5497 marriages registered during the year 1886, being 406 more than in the year before.

This is one marriage to every 130 of the population, or a marriage rate of 7.68 per 1000.

Of brides in 1886 there were 4930, first marriages, being 415 more than in 1885 ; there were 553 brides, second marriages, being 17 more than in 1885 ; there were 28 brides, third marriages, 2 less than in 1885 ; and there was one bride at her fourth marriage, as there was the previous year.

Of grooms in 1886 there were 4617, first marriages, being 330 more than in 1885 ; there were 799 grooms' second marriages, being 93 more than in 1885 ; there were 76 grooms, third marriages, being exactly the same number as in 1885 ; there were 7 grooms, fourth marriages, being 3 more than in 1885 ; and there was one groom who having passed his threescore years and ten, entered for the fifth time into the joys of connubial bliss.

The following table shows the relative ages at marriage and the number of first, second, third, etc., marriages :

BRIDES.	12 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	Not stated.	Total.
First Marriage	1 836	3,642	376	60	9	3				3	4,930
Second "	4	149	221	115	41	15	8				553
Third "			7	10	8	2	1				28
Fourth "						1					1
No. not stated											
Total, 1886	1 840	3,791	604	185	58	21	9			3	5,512
" 1885	1 833	3,389	563	208	57	25	5			1	5,091
" 1884	1 868	3,418	619	173	78	21	4			212	5,394
" 1883	1 787	3,648	526	184	70	20	5			199	5,440
" 1882	2 719	3,447	546	162	67	21	2				5,049
" 1881	705	2,959	774	156	62	25	5				4,687
" 1880	5 860	2,819	669	183	55	24	10				4,625
" 1879	736	2,788	436	151	80	25	2	2			4,234
GROOMS.											
First Marriage	108	3,642	753	96	17	1					4,617
Second "		120	293	201	113	54	18				799
Third "		2	13	18	17	18	8				76
Fourth "				1	2	2	2				7
Fifth "							1				1
Sixth "											
No. not stated										12	12
Total, 1886	108	3,764	1059	316	149	75	29			12	5,512
" 1885	106	3,508	945	305	119	69	21	1		8	5,091
" 1884	92	3,054	1355	274	151	79	24	1	364		5,394
" 1883	89	3,604	976	299	143	61	24	1	243		5,440
" 1882	77	3,464	771	293	139	68	24	3			5,049
" 1881	89	3,165	921	299	122	65	21	5			4,687
" 1880	207	3,134	898	214	116	43	18	5			4,625
" 1879	114	2,988	634	281	127	82	7	1			4,234

COMPARATIVE AGES OF AMERICAN AND FOREIGN-BORN MOTHERS.

NO. OF MOTHERS AT BIRTH OF—	AMERICAN MOTHERS.							FOREIGN MOTHERS.							TOTAL FOR SEVEN YEARS.	
	Under 15.	15 to 18.	18 to 20.	20 to 30.	30 to 40.	40 to 50.	Age not stated.	TOTALS.							American.	Foreign.
								1886.	1885.	1884.	1883.	1882.	1881.	1880.		
1st child.	2 132	348	1899	300	22	2 2705	2688	2727	2744	2541	2554	2637	18596	9395		
2d "	8 106	1520	398	14	3 2049	1884	1919	2893	1762	1805	1638	915	18950	7020		
3d "	---	6 915	476	28	1 4426	1294	1390	1225	1295	1128	1163	821	8921	5170		
4th "	---	1 477	430	32	2 942	899	834	806	860	839	793	1 937	8921	5170		
5th "	---	1 195	361	40	---	597	555	574	559	555	571	487	8921	5170		
6th "	---	1 84	269	40	---	394	380	358	356	344	319	1 531	8921	5170		
7th "	---	29 195	37	1	262	261	235	213	206	214	195	449	8921	5170		
8th "	---	12 116	36	---	164	166	140	138	113	73	75	337	8921	5170		
9th "	---	8 77	26	---	111	99	82	81	67	42	51	207	8921	5170		
10th "	---	---	43	12	55	48	50	46	28	27	30	88	8921	5170		
11th "	---	---	14	13	27	37	24	27	19	18	25	41	8921	5170		
12th "	---	---	10	4	14	13	14	14	12	12	15	25	8921	5170		
13th "	---	---	1	4	6	8	6	8	3	6	6	10	8921	5170		
14th "	---	---	---	3	4	3	3	1	2	2	2	22	8921	5170		
15th "	---	---	---	1	1	1	2	2	3	1	1	9	8921	5170		
16th "	---	---	---	---	---	---	---	---	---	---	---	6	8921	5170		
17th "	---	---	---	---	---	---	---	---	2	2	2	1	8921	5170		
18th "	---	---	---	---	---	---	---	---	---	1	---	---	8921	5170		
19th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
20th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
21st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
22nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
23rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
24th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
25th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
26th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
27th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
28th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
29th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
30th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
31st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
32nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
33rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
34th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
35th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
36th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
37th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
38th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
39th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
40th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
41st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
42nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
43rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
44th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
45th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
46th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
47th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
48th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
49th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
50th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
51st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
52nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
53rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
54th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
55th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
56th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
57th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
58th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
59th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
60th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
61st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
62nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
63rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
64th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
65th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
66th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
67th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
68th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
69th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
70th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
71st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
72nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
73rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
74th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
75th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
76th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
77th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
78th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
79th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
80th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
81st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
82nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
83rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
84th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
85th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
86th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
87th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
88th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
89th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
90th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
91st "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
92nd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
93rd "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
94th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
95th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
96th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
97th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
98th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
99th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
100th "	---	---	---	---	---	---	---	---	---	---	---	---	8921	5170		
Total	2 140	463	5142	2696	316	50 8809	8491	8391	9225	7822	7709	7435	57882	43403		

Nationality, Number and Age not stated, 241—143 of which is in Naugatuck.

TABLE OF DIVORCES, 1886.

COUNTIES.	Husband's Petition.	Wife's Petition.	TOTAL IN—													
			1886.	1885.	1884.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.	1875.	1874.	1873.
Hartford ----	16	64	80	75	74	77	66	80	49	51	74	72	91	73	86	70
New Haven ----	35	68	103	106	71	119	125	121	96	84	111	97	103	52	131	107
New London .	10	33	43	28	44	47	40	38	32	35	52	44	54	51	63	67
Fairfield ----	19	44	63	94	84	101	86	78	63	63	74	92	58	73	76	71
Windham ---	7	31	38	27	22	30	16	36	33	27	28	35	17	36	46	51
Litchfield ---	10	14	24	22	18	25	23	35	32	24	23	36	25	45	39	40
Middlesex ---	4	8	12	12	22	34	23	6	11	14	18	23	21	21	18	25
Tolland ----	8	16	24	19	25	18	23	10	16	19	21	28	27	25	33	26
Total -----	109	278	387	383	360	451	392	404	332	316	401	457	396	476	492	457

DIVORCES GRANTED BY THE SUPERIOR COURT IN THE STATE OF
CONNECTICUT DURING 1886.

CAUSES.	Hartford County.	New Haven County.	New London County.	Fairfield County.	Windham County.	Litchfield County.	Middlesex County.	Tolland County.	Total.
Adultery	13	33	5	11	5	4	—	3	74
Desertion	23	31	17	24	17	10	5	10	137
Intemperance	18	20	8	12	8	1	3	6	76
Cruelty	12	14	3	7	6	3	2	5	52
Intemperance and cruelty	5	3	4	5	2	6	2	—	27
Intemperance and desertion	2	—	1	1	—	—	—	—	4
Adultery and intemperance	1	—	1	2	—	—	—	—	4
Desertion and cruelty	1	—	1	1	—	—	—	—	3
Adultery and cruelty	—	—	1	—	—	—	—	—	1
Imprisonment for life	—	—	1	—	—	—	—	—	1
Corporal Imbecility	—	—	1	—	—	—	—	—	1
Fraudulent contract	—	2	—	—	—	—	—	—	2
Desertion and adultery	2	—	—	—	—	—	—	—	2
“ intemperance and cruelty	3	—	—	—	—	—	—	—	3
Total	80	103	43	63	38	24	12	24	387

DEATHS.

The mortality in 1886 numbered 11,616, being 417 less than in the preceding year.

Upon an estimated population of 715,329 the death-rate is 16.23 per 1000.

The deaths of males numbered 5922, of females, 5662, and there were only 32 deaths of which the sex was not stated, while last year before there were 79.

The greatest mortality occurred in August, and amounted to 1208, the smallest in June when there were only 814.

The annual rates represented by the deaths registered in each quarter were as follows :—

First quarter, 16.3 per 1000 of the population.

Second quarter, 14.8 “ “ “

Third quarter, 18.3 “ “ “

Fourth quarter, 15.5 “ “ “

The annual death-rate was 16.23.

CAUSES OF DEATH.

I.—ZYMOTIC DISEASES.

The deaths from zymotic diseases registered during the year 1886 amounted to 2311 or 19.8 per cent. of the total mortality. This differs only from the previous year by an excess of $\frac{1}{10}$ of 1 per cent. This however is too large a percentage of that class of diseases which are the most preventable by the adoption and practice of the laws of health. It is quite within the limits of reasonable possibilities to materially diminish the deaths resulting from the zymotic class of diseases, every year, and thus throughout the State make an annual saving of several hundred lives.

From the causes of deaths as registered under the different classes, the percentage from each class was as follows :

From the Zymotic,	19.80 per cent. of total mortality.			
“ Constitutional,	17.80	“	“	“
“ Local,	37.80	“	“	“
“ Developmental,	15.96	“	“	“
“ Violence,	4.16	“	“	“
“ Unclassified,	1.77	“	“	“
“ Causes not stated,	2.66	“	“	“

100.00

A brief reference to the more fatal diseases will be of interest.

Small Pox.—Owes its prominence in the public mind, not to the injury it is capable of inflicting upon human life in these latter days, because for many years it has had far fewer victims in Connecticut than whooping-cough or many another disorder which excites no public apprehension. In no one particular is the triumph of medical science over disease more conspicuously manifested than in the subjugation of this most loathsome malady. The year 1886 makes three consecutive years in which there has not been a fatal case of small pox within the borders of the State.

Measles.—The fatality from this disease amounted to only 9. This was a large decrease since the preceding year when its victims were 154. The fatal cases of measles were all in the northern side of the State, 6 being in Hartford County and 3 in Windham County.

Scarlet Fever.—Has abated also though not in so large degree, since the year before. There were 117 fatal cases of scarlet fever in 1886 against 286 in 1885. Its prevalence was general throughout the State, although somewhat unequally distributed. Fatal cases occurred in Hartford County in 11 different towns to the number of 32. New Haven County had 53 deaths in 7 different towns. New London County had fatal cases in only 3 towns with 5 deaths. Fairfield County had cases in 6 towns with 13 deaths. Windham County was visited fatally in 5 towns with only 6 deaths. Litchfield County had 4 deaths in 2 towns. Middlesex County had only 1 fatal case, and Tolland only 3 in 2 different towns.

If there was the same public fear of scarlet fever that there is of small pox, and if public sentiment would sustain the health officers in enforcing the same precautions in regard to isolation of patients and disinfection that is demanded by the public on every appearance of small pox, it is safe to say that more than 100 of the 117 victims of scarlet fever, would be alive and well to-day, to gladden and cheer the desolated homes that mourn for them.

Diphtheria and Croup.—Of these dangerous diseases there has been a marked increase. Against 499 fatal cases in 1885, there was 562 in 1886.

These maladies are considered together because it is a mooted question whether they be not varying types of the same disease, and because if they are in fact two diseases the diagnostic distinctions

are often so ill defined as to render the discrimination frequently uncertain. These disorders are growing steadily more and more endemic in many parts of the State. Fatal cases occurred in 78 different towns, distributed through all the counties of the State. Diphtheria is one of those disorders which has long been recognized as eminently belonging in the list of "filth diseases." Whatever agency filth *per se* may have in originating the disease the evidence is overwhelming and unquestioned that filth is an aggravating influence, and that among filthy surroundings the disease is always more malignant and fatal. The practical inference from this fact it is unnecessary to state formally.

Whooping-Cough.—The mortality from whooping-cough is also greater than the average during the last decade, which was about 65. The fatal cases in 1886 numbered 106. This by no means represents the prevalence of the disease, as it is seldom fatal except among young children. In many towns it has prevailed as a general epidemic. Every county in the State has suffered a fatal visitation excepting Windham. The following table shows the fatal cases in the several counties in the above named diseases.

	Hartford.	New Haven.	New London.	Fairfield.	Windham.	Litchfield.	Middlesex.	Tolland.	TOTAL.
Measles	6	0	0	0	3	0	0	0	9
Scarlet Fever.....	32	53	5	13	6	4	1	3	117
Diphtheria	101	139	37	147	62	9	58	9	562
Whooping-Cough	31	35	10	18	0	2	4	6	106

The above are infectious diseases mostly attacking only children. They are communicable from one to another. The most effective means of controlling the spread of them is by isolation of the sick and thorough disinfection of everything in contact with them. Such means are quite practicable. The neglect of them last year cost over 700 lives.

Typhoid Fever.—Is much less prevalent throughout the State than it was in the twenty years from 1858 to 1878, during which

time with a much smaller population the average number who died annually of this disease was more than 390. The deaths registered from this cause last year was 244.

A notable diminution of mortality from typhoid fever was noticed with the occurrence of malarial fevers, and since the subsidence in some degree of the latter there is again a slight increase in the typhoid type.

If the present belief of the majority of the medical profession is founded in fact, the entire control of the spread of this disease is quite within the limits of easy possibilities.

The prevailing belief among those who have the right to an opinion upon this subject, by virtue of their opportunities for study and observation, is, that the contagious principle of typhoid fever is a living germ, found exclusively in the discharges from the bowels of typhoid fever patients. If this is true, it is quite practicable to thoroughly and completely disinfect all the stools of every typhoid fever patient that is under treatment, and so effectually prevent them from being the source of any contagion to others. It is not in the least a difficult thing to do. If the stools of that one typhoid fever patient which infected the reservoir of Plymouth, Pa., two years ago, had been thoroughly disinfected, that fearful epidemic would not have occurred, hundreds of lives would have been spared, and that community of 8000 people would not have been overwhelmed with such a dreadful calamity. The time will come when a death from typhoid fever will be understood as within the meaning of the coroner's law and as being "sudden and untimely" will demand an investigation as much as a death on a railroad train.

The following table shows the registered deaths from typhoid fever by counties from 1854 to 1886.

DEATHS FROM TYPHOID FEVER BY COUNTIES.

1854-1886.

	Hartford County.	New Haven County.	New London County.	Fairfield County.	Windham County.	Litchfield County.	Middlesex County.	Tolland County.	TOTAL.	Per cent. to known causes.
1854	83	74	13	26	23	40	17	8	284	6.20
1855	58	62	32	15	25	28	27	20	273	5.50
1856	47	62	31	16	29	36	20	15	256	4.62
1857	61	58	28	15	27	35	29	14	267	4.55
1858	68	68	25	35	25	34	16	24	285	4.89
1859	78	55	25	48	26	36	17	22	307	5.30
1860	59	91	24	28	35	40	20	17	314	5.60
1861	92	74	32	34	42	32	23	31	360	5.25
1862	99	83	45	46	24	36	24	24	381	5.10
1863	112	96	61	39	19	45	28	27	427	5.71
1864	97	117	52	43	18	54	29	32	442	5.44
1865	129	97	80	50	60	57	42	27	548	7.79
1866	77	79	49	27	36	20	15	19	332	5.95
1867	117	105	38	38	25	46	19	28	415	6.39
1868	81	104	32	33	31	30	30	25	366	5.54
1869	84	130	34	59	38	48	38	30	458	5.63
1870	87	124	31	54	37	44	35	25	427	5.49
1871	64	111	25	53	31	34	29	5	352	4.93
1872	134	134	37	67	39	39	32	24	506	5.76
1873	114	117	37	43	33	41	24	21	430	5.00
1874	69	109	40	31	32	32	28	21	370	4.68
1875	103	119	38	45	40	44	32	28	449	3.11
1876	76	79	42	42	25	32	12	20	327	3.58
1877	80	80	33	40	25	26	17	28	329	3.32
1878	39	55	30	28	27	27	25	15	246	2.70
1879	30	24	34	26	14	15	5	11	169	1.77
1880	40	47	32	31	34	21	19	18	242	2.51
1881	52	68	23	32	30	18	19	15	257	2.45
1882	64	76	35	35	37	28	24	25	325	3.10
1883	49	118	26	29	28	18	14	20	292	2.14
1884	61	93	29	30	25	11	16	16	281	2.47
1885	66	56	22	31	18	19	8	7	227	1.09
1886	50	70	19	30	29	21	13	12	244	2.15

II.—CONSTITUTIONAL DISEASES.

The deaths registered as caused by this class of diseases, numbered 2067 as against 2215 of the previous year. The one disease destroying in this country more than any other, viz : Consumption, is enumerated in this class. Its fatal work last year was measured by 1364 deaths. In the year before there were 1422. Next in importance in this class is cancer. Its victims in 1886 were 280 against 288 of the preceding year.

III.—LOCAL DISEASES.

This class of diseases is of great number and variety. They are the special diseases which attack the organs of the body, and are subdivided with reference to their anatomical location. The whole mortality in the State from local diseases was 4390 as against 4658 of the year before.

The following is a brief summary of the more important members of the subdivisions of this class.

Diseases of the Nervous System.—From this group there were 1446 deaths, the greater part of which were of the following special diseases, to wit : Apoplexy, 341 ; cerebral meningitis, 178 ; softening of the brain, 73 ; insanity, 37 ; other brain diseases, 122 ; besides the above 278 deaths were attributed to paralysis, and 279 to convulsions ; epilepsy is charged with 36 deaths ; Tetanus with 18 ; sunstroke with 5 ; myelitis with 6 ; and locomotor ataxia with 5.

Diseases of the Circulating System.—Of these there were 744, of which 640 were registered as simply “heart disease,” besides 36 from angina pectoris, and 13 from pericarditis.

Diseases of the Respiratory System.—The fatality from this class was 1140, of which pneumonia was held responsible for 837, and bronchitis for 197.

Diseases of the Digestive System.—The mortality from these diseases reached 615. Of these 127 were the result of peritonitis and 186 of other intestinal inflammations.

Diseases of the Urinary System.—These caused the death of 392 during the year, as against 424 of the previous year. The number registered against Bright’s disease, nephritis and uræmia amounted to 308 of them.

Diseases of the Generative System.—Diseases of this subdivision were fatal in 41 instances, all but two of which were of the uterus and ovaries.

Diseases of the Locomotory System.—Were fatal in only 3 instances. All from caries of bone.

Diseases of the Integumentary System.—Were also infrequent, numbering only 9 in the year, against 39 of the previous year.

IV. DEVELOPMENTAL DISEASES.

The registered deaths from this class amounted to 1852, of which 943 were of children, and of these 433 were still-born, and therefore not strictly to be counted as deaths, never having been

born alive ; 783 were deaths from old age, and the others were from innutrition and the diseases of women connected with child-birth.

V. VIOLENT DEATHS.

The number who perished of violence in its various forms was 485, being 10 less than in the preceding year. Of these 393 were registered as accidental ; 10 as homicidal ; and 82 as suicides. It is notable that there are exactly the same number of suicides in the year before, 82. Of the accidental deaths 97 of them were on the railroads in the State.

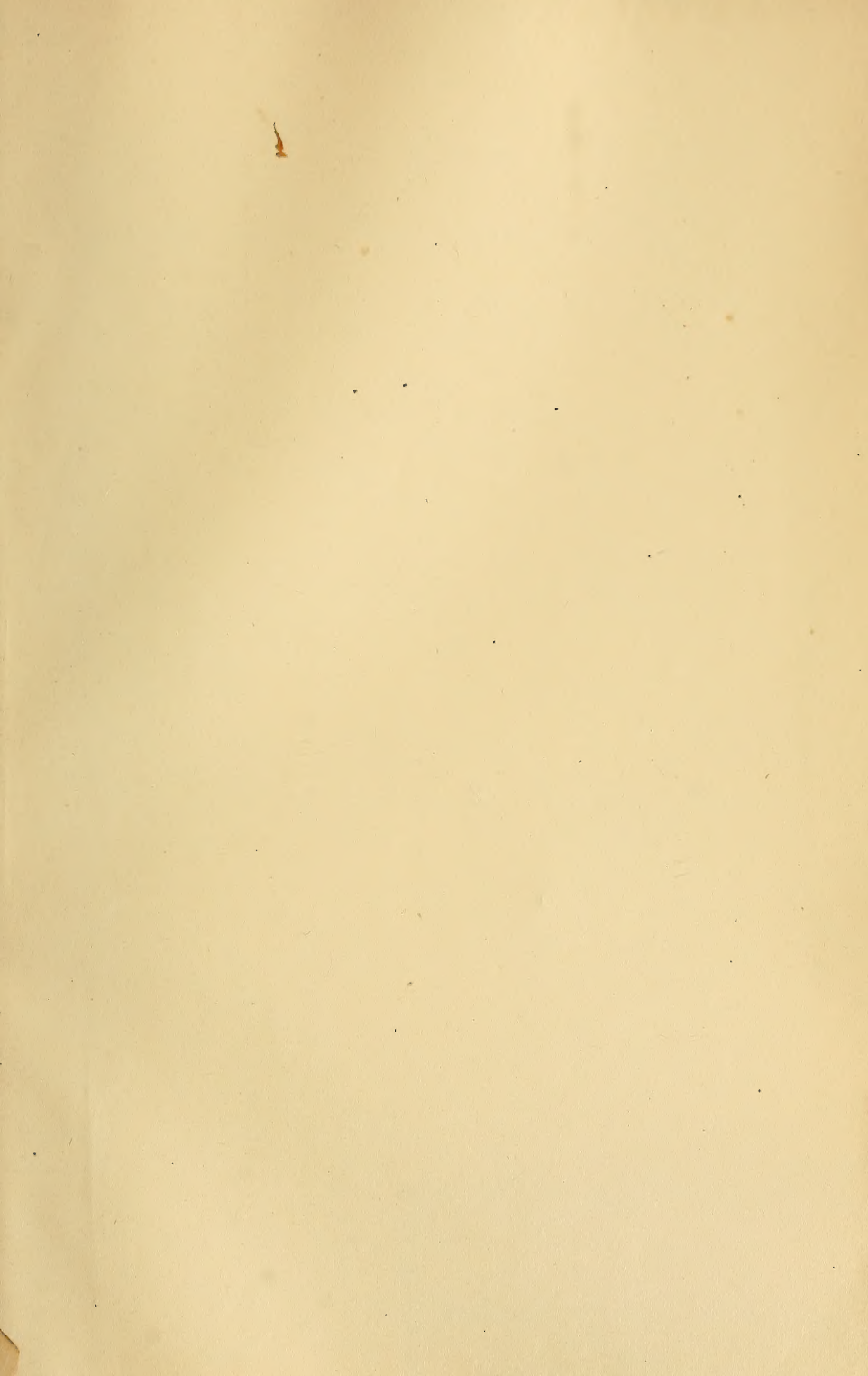
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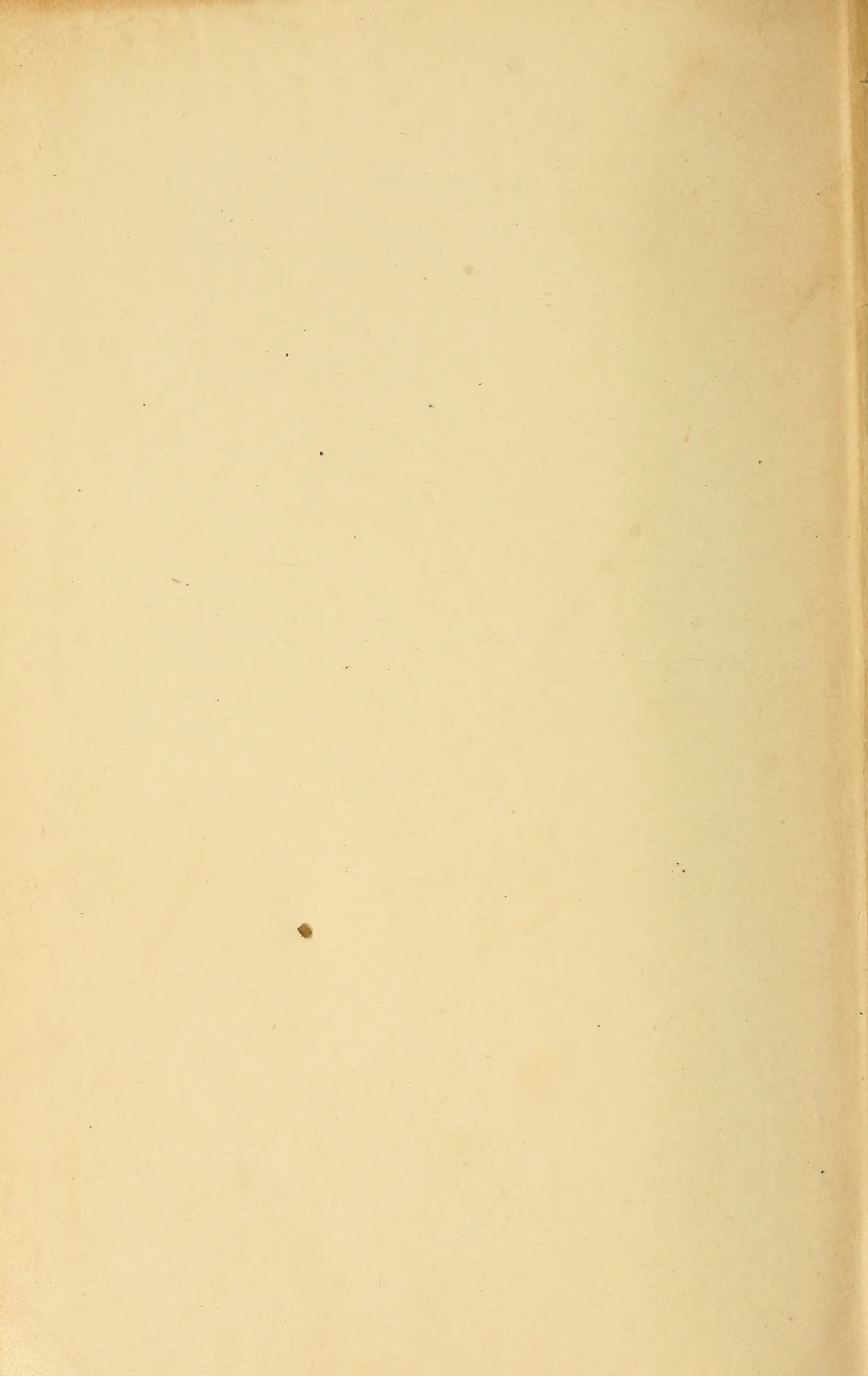
There were 206 deaths, respecting which the registered causes were so indefinite that they could not be classified. And there were 305 deaths recorded for which no cause was given on the certificates. Of these unknown causes 60(!) were in Danbury, and 33 in Enfield.

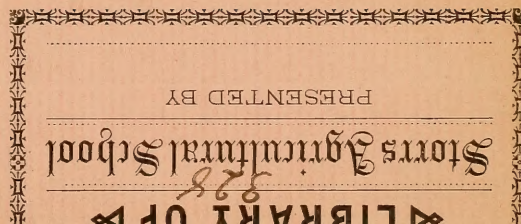
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